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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Cottonwood Resource Area Headquarters
Route 3, Box 181
Cottonwood, Idaho 83522

IN REPLY REFER TO
GEIS-1792(580)

Dear Reader:

Enclosed for your review and comment is the Draft Environmental Impact Statement (EIS) on proposed grazing management for the Bureau of Land Management (BLM), Coeur d'Alene District of northern Idaho. This document has been prepared by a team of resource specialists and is based on information from the BLM and other sources, including information supplied by consultation with Federal, State, and local agencies, and interested private organizations and individuals.

The purpose of the document is to disclose in advance the probable environmental impacts of the alternatives including the proposed action and to assure that these factors are considered along with technical and other considerations in the decision-making process.

We would appreciate receiving your written comments on this EIS. Following the public review period, a final document will be prepared using the comments received through the review process. The final document should be published in September 1981.

Should only minor changes be required in the final document, they will be published in an abbreviated format containing a listing of public comments and responses and any necessary corrections. This would result in substantial cost savings. In case this happens, please keep your copy of this draft EIS for reference purposes.

Written comments should be submitted by July 27, 1981 to:

Dick Todd
Northern Idaho Grazing EIS Team Leader
Bureau of Land Management
Route 3, Box 181
Cottonwood, Idaho 83522

Sincerely yours,

Acting District Manager

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DEPARTMENT OF THE INTERIOR

NORTHERN IDAHO GRAZING MANAGEMENT
ENVIRONMENTAL IMPACT STATEMENT

Prepared by
BUREAU OF LAND MANAGEMENT
COEUR D'ALENE DISTRICT OFFICE
COTTONWOOD RESOURCE AREA HEADQUARTERS

Theodore G Bingham

Theodore G. Bingham, Acting
STATE DIRECTOR, IDAHO STATE OFFICE

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NORTH IDAHO GRAZING MANAGEMENT
ENVIRONMENTAL IMPACT STATEMENT

(X) Draft ( ) Final Environmental Impact Statement

1. Type of Action: (X) Administrative ( ) Legislative

2. Responsible Agencies:

    a. Lead Agency: Department of the Interior, Bureau of Land Management

    b. Cooperating Agencies: None

3. Abstract: The North Idaho Grazing Management Environmental Impact Statement analyzes the effects of a 20-year grazing management program on public lands in northern Idaho. Four grazing management alternatives including the proposed action, which is the Bureau's preferred alternative, are presented for consideration and are analyzed in terms of their projected environmental (including economic) effects. The proposal and alternatives present different levels of vegetative allocations to wildlife, livestock, and other uses. Also analyzed are alternative intensities of grazing management as well as necessary support facilities (i.e., water development, fencing, and land treatments).

4. Comments Must be Received By: July 27, 1981.

5. Send Comments to:

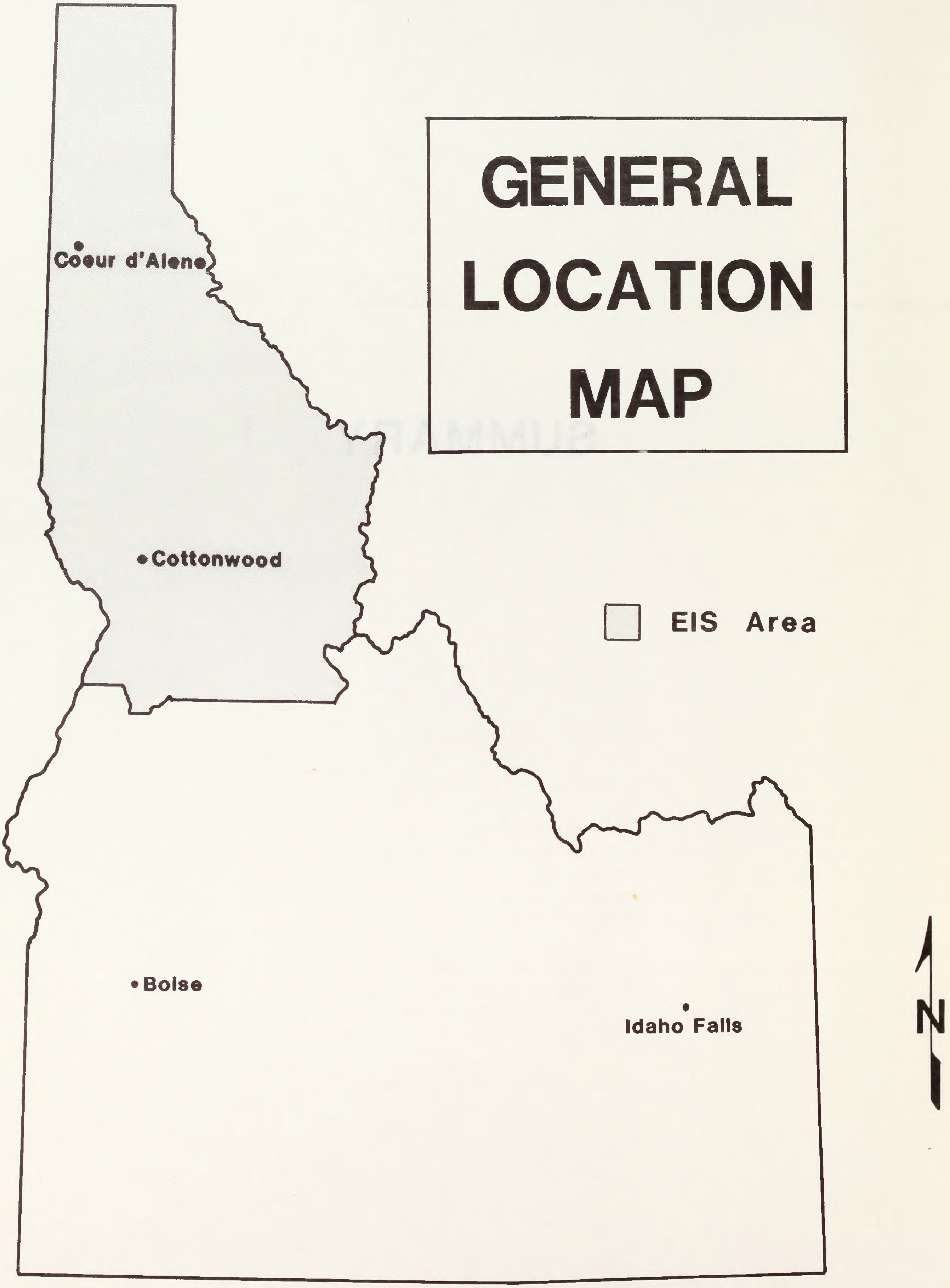
Bureau of Land Management
Cottonwood Resource Area Headquarters
Route 3, Box 181
Cottonwood, Idaho 83522

6. For Further Information, Contact:

Wayne Zinne, Acting District Manager,
Richard D. Harms, Cottonwood Resource Area Manager or
Dick Todd, Team Leader
at the above address
Telephone: (208) 962-3245

SUMMARY

GENERAL LOCATION MAP



SUMMARY

INTRODUCTION

The purpose of this Environmental Impact Statement (EIS) is to provide the decision-maker and the public with an assessment of environmental impacts which would or could result from implementation of a 20-year grazing management program on public lands in northern Idaho. The proposed grazing management alternatives were developed through the Bureau of Land Management (BLM), Coeur d'Alene District's management framework plan (MFP). The purpose of any of the proposed alternatives is to improve or maintain soil, vegetation, watershed, wildlife, and other resource conditions. The proposed action alternative and the three other alternatives were developed to analyze different levels of wildlife and livestock use.

Alternative methods by which livestock grazing would be managed as well as necessary supporting facilities (i.e., water development, fencing, and land treatment projects) are addressed. Alternatives considered in addition to the proposed action alternative are 1) current management (No Action), 2) resource protection, and 3) no livestock grazing.

The EIS area is located in the panhandle of northern Idaho. Of the almost 14 million acres within the area, only 271,425 acres (1.9%) are managed by BLM. The BLM lands within grazing allotments total 121,031 acres, or approximately 45 percent of all lands managed by the BLM in the Coeur d'Alene District.

ALTERNATIVES INCLUDING THE PROPOSED ACTION

The BLM has analyzed the impacts of the following four alternatives:

Proposed Action Alternative (Bureau's Preferred Alternative)

The proposed action alternative would allocate vegetation for consumptive use by livestock, elk, mule deer, and white-tailed deer. Vegetation would be allocated to satisfy projected wildlife numbers determined during the BLM planning process and consultation with the Idaho Department of Fish and Game. Initial livestock use would decrease on 44 allotments and remain unchanged on 128 allotments. Overall, the total active grazing preference would be reduced from 7,198 animal unit months (AUMs) to 6,684 AUMs (7%). Adjustments in livestock use on AMP allotments would be implemented within a 5-year period following completion of this document.

Two levels of management intensity (intensive and less intensive) would be applied. Intensive management is implemented through allotment management plans (AMPs) and include application of livestock grazing treatments. Under the proposed action alternative rest, deferred, and seasonal grazing treatments would be used. Most of the BLM grazing lands within the Coeur d'Alene District are managed in association with private lands; therefore, management must be coordinated with the predominant use of the adjacent private lands. The BLM would be the lead agency in developing AMPs for intensive management on six allotments, and the Soil Conservation Service (SCS) would be the lead agency in developing cooperative AMPs for intensive management on eight allotments with assistance from the BLM. The Kirks Fork AMP (6261) for intensive management has already been developed and implemented by the BLM. Less intensive management would not utilize allotment management plans (Non-AMPs). Non-AMPs would be applied to the remaining 157 allotments.

implementation of the proposed action alternative would require installation of approximately 25.5 miles of fence, 30 spring developments, 7 water catchments, and 10 cattleguards. Special riparian management practices (drift fences) would be applied to 2.7 miles of stream. Approximately 1,900 acres of noxious weeds would be treated with herbicides.

Alternative 1 (Current Management)

Alternative 1 would continue the active grazing preference at the current level of 7,198 AUMs. The present level of wildlife use would continue, but without formal allocation wildlife would lose approximately 65 AUMs that are presently in direct competition with livestock.

The one allotment (6261) would continue to be managed under an AMP. The remaining 171 allotments would all be managed at the current level.

Existing range improvements would be maintained; however, no new improvements would be initiated by the BLM. Noxious weed control would take place on 1,900 acres, the same as for the proposed action alternative and all the other alternatives.

Alternative 2 (Resource Protection Alternative)

Alternative 2 would allocate forage for livestock at a level below that of the proposed action or current management alternatives. The formal grazing preference would be reduced from 7,198 AUMs to 6,285 AUMs (13%). The forage allocation to wildlife would be the same as for the proposed action alternative (1,004 AUMs).

Under this alternative, 14 allotments would be developed as cooperative AMPs. Current management would occur on 152 allotments, and grazing on 5 allotments would be cancelled because of large blocks of unsuitable range, soil protection, watershed, and aquatic habitat values. Changes in season of use would occur on 79 allotments.

All range treatments would remain the same as under the proposed action alternative. An additional 21 miles of fence would be constructed under this alternative to prevent livestock grazing on important wildlife areas.

Alternative 3 (No Livestock Grazing)

Alternative 3 would eliminate all livestock grazing on BLM land. Forage would be allocated to maintain wildlife populations at the levels projected in the proposed action alternative. All remaining vegetation would then be allocated to other nonconsumptive uses. All existing grazing leases would be cancelled. Any range improvements not benefitting wildlife would be removed. Approximately 1,900 acres of noxious weeds would be sprayed with herbicides as needed to improve watershed condition.

ENVIRONMENTAL CONSEQUENCES

The proposed action alternative, current management alternative, and resource protection alternative were all found to have no significant effect on the resource values that were assessed when considered in a regional context with the design features described in Chapter 2 and the associated appendixes. Although insignificant, the no livestock grazing alternative was found to have the greatest impact of any of the alternatives under consideration.

ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION ALTERNATIVE

The proposed action would cause a slight but immeasurable reduction in soil loss.

The proposed action would provide for localized improvements in watershed and stream condition on BLM lands; however, the overall effects on water yield, quality, and use would be immeasurable.

The proposed action is expected to increase long term forage production within the EIS area. The total available forage is expected to increase from 6,684 AUMs to 7,661 AUMs. Range condition and trend are both expected to improve.

The proposed action would benefit most terrestrial wildlife species. Reduced competition for forage, space, and cover would be realized. Improved riparian habitat would occur with additional management measures that reduce livestock impacts on stream banks and riparian areas. Fish habitat would be improved slightly from local improved water quality, but not enough to affect fish production.

Impacts to both prehistoric and historic resources would increase slightly above the present situation from increased concentration of livestock around springs and other developments. Human activity around developments and increased access to developments could lead to increased vandalism. None of the known cultural resources in the EIS area would be impacted by range developments.

A determination of no effect based upon the grazing management plan presented in the proposed action alternative and other alternatives has been reached between the Bureau and the Idaho State Historic Preservation Office.

Of the 172 livestock operators in the Coeur d'Alene District, 44 would be faced with initial short-term reductions in use. In the long term, livestock use would be approximately 214 AUMs above the initial stocking rate. Initial livestock reductions are not expected to cause adverse social impacts to those operators receiving reductions.

Income changes over the 20-year period would not be significant. The net present worth of regional income changes would be +$50,000. The proposed action would not affect regional employment.

Environmental Consequences of the Current Management Alternative (Alternative 1)

Soil erosion would tend to increase; however, the increase would not be measurable. Increased erosion would cause a very slight decrease in overall watershed condition and fisheries habitat quality, but not enough to affect fish populations.

Alternative 1 would have the greatest adverse affect on terrestrial wildlife habitat. Competition on early spring range would continue on 79 allotments. Forage available to wildlife would continue to be less than projected populations would need on 45 allotments. Deterioration of riparian habitat would continue.

Conflicts between recreation users and livestock, particularly along the lower Salmon River, would continue without change in the season of use.

The net present worth of alternative 1 would be +$4,600. Livestock industry employment opportunities would not be affected in any way by this alternative.

Environmental Consequences of the Resource Protection Alternative (Alternative 2)

Soil erosion rates would tend to be reduced locally; however, the reduction would be immeasurable. The delay in livestock turnout would further reduce sedimentation, improving overall watershed condition.

Vegetation condition would improve slightly as grazing is delayed until the proper phenological development of key forage species is reached. The overall improvement in range condition and trend would be greater than could be expected from the current management or proposed action alternatives.

Alternative 2 provides greater benefits to wildlife than either the proposed action or current management. Later turnout dates, improved range conditions, lower utilization levels, and elimination of livestock conflicts on deer and elk winter ranges would improve wildlife habitat conditions. Aquatic wildlife would benefit from excluding livestock grazing on 2.7 miles of streams. This would improve fisheries habitat condition; however, the improvement is not expected to be significant.

Cultural resources would be affected to a lesser degree than from the current management or proposed action alternatives because stocking rates would be reduced. Overall impacts from range improvements would be similar to the proposed action alternatives.

Livestock operations would be reduced initially by 913 AUMs and would recover only 86 percent of that total lost within 20 years. The reduced allocation and delayed turnout date would force operators to find additional pasture, buy hay, or reduce numbers.

Economic losses to rancher income would total $5,200 initially. Costs for installation and maintenance of range improvements would be similar to costs of the proposed action alternative. The net present worth to the regional economy of the various changes in income would be +$32,000.

Environmental Consequences of the No Grazing Alternative (Alternative 3)

Soil erosion rates would decrease overall; however, since current erosion rates are at or near natural rates, except for a limited number of areas, a measurable improvement would not occur.

Watershed condition can be expected to improve as soil losses decrease on BLM land. Those improvements could be offset if ranchers make up for lost forage by heavier use on private lands adjacent to BLM land.

Improvements in plant vigor would be most dramatic if grazing were eliminated. The improved plant vigor would help to reverse downward trend and accelerate the improvement in range condition.

By eliminating livestock grazing, terrestrial and aquatic habitat condition would improve more than under any other alternative. As a result of improved habitat and elimination of competition with livestock, populations would increase slightly; however, the increases cannot be calculated.

Impacts to cultural resources from livestock grazing would cease.

The elimination of all livestock grazing from BLM lands would not cause a significant decrease in livestock production over the EIS area. Size of herds would likely have to be reduced; otherwise, declining vegetation condition on private lands would reduce the total available forage to livestock.

The ranching industry would lose approximately $40,000 annually should livestock grazing be eliminated from BLM lands. This is the only alternative that would result in the loss of jobs to the region. Five jobs would be lost. The net present worth to the regional economy of implementing this alternative would be -$560,000.

TABLE OF CONTENTS

Page No.

SUMMARY S-1

CHAPTER 1 NEED FOR THE PROPOSED ACTION. 1-1

SCOPING. 1-1
CONTEXT. 1-2

CHAPTER 2 ALTERNATIVES INCLUIDING THE PROPOSED ACTION 2-1

PROPOSED ACTION ALTERNATIVE (BLM'S PREFERRED ALTERNATIVE). 2-1
ALTERNATIVE 1 (NO ACTION--CURRENT MANAGEMENT). 2-14
ALTERNATIVE 2 (RESOURCE PROTECTION). 2-15
ALTERNATIVE 3 (NO LIVESTOCK GRAZING) 2-16
INTERRELATIONSHIPS 2-18
COMPARATIVE ANALYSIS OF IMPACTS. 2-20

CHAPTER 3 AFFECTED ENVIRONMENT. 3-1

SETTING. 3-1
SOILS RESOURCE. 3-1
WATER RESOURCE. 3-1
VEGETATION RESOURCE 3-4
TERRESTRIAL WILDLIFE. 3-9
AQUATIC WILDLIFE. 3-14
CULTURAL RESOURCE 3-16
RECREATION RESOURCE 3-17
LIVESTOCK GRAZING 3-19
ECONOMICS 3-19

CHAPTER 4 ENVIRONMENTAL CONSEQUENCES. 4-1

INTRODUCTION 4-1
SUMMARY OF FINDINGS. 4-3
ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION ALTERNATIVE. 4-3
SOILS RESOURCE. 4-3
WATER RESOURCE. 4-3
VEGETATION RESOURCE 4-4
TERRESTRIAL WILDLIFE. 4-8
AQUATIC WILDLIFE. 4-13
CULTURAL RESOURCE 4-16
RECREATION RESOURCE 4-16
LIVESTOCK GRAZING 4-17
ECONOMICS 4-17

TABLE OF CONTENTS (CONT.)

Page No.

ENVIRONMENTAL CONSEQUENCES OF THE CURRENT MANAGEMENT ALTERNATIVE (ALTERNATIVE 1). . . 4-18

SOILS RESOURCE. 4-19
WATER RESOURCE. 4-19
VEGETATION RESOURCE 4-19
TERRESTRIAL WILDLIFE. 4-19
AQUATIC WILDLIFE. 4-21
CULTURAL RESOURCE 4-21
LIVESTOCK GRAZING 4-21
ECONOMICS 4-22

ENVIRONMENTAL CONSEQUENCES OF THE RESOURCE PROTECTION ALTERNATIVE (ALTERNATIVE 2). . 4-22

SOILS RESOURCE. 4-22
WATER RESOURCE. 4-22
VEGETATION RESOURCE 4-22
TERRESTRIAL WILDLIFE. 4-23
AQUATIC WILDLIFE. 4-25
CULTURAL RESOURCE 4-25
LIVESTOCK GRAZING 4-25
ECONOMICS 4-26

ENVIRONMENTAL CONSEQUENCES OF THE NO GRAZING ALTERNATIVE (ALTERNATIVE 3) 4-27

SOILS RESOURCE. 4-27
WATER RESOURCE. 4-27
VEGETATION RESOURCE 4-27
TERRESTRIAL WILDLIFE. 4-27
AQUATIC WILDLIFE. 4-28
CULTURAL RESOURCE 4-30
LIVESTOCK GRAZING 4-30
ECONOMICS 4-31
RELATIONSHIP BETWEEN SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY AND THE IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES 4-31

CHAPTER 5 CONSULTATION AND COORDINATION 5-1

PREPARERS. 5-1
COORDINATION PRIOR TO THE EIS PREPARATION. 5-1
CONSULTATION AND CORRDINATION DURING THE PREPARATION OF THE EIS. 5-1
COORDINATION IN THE REVIEW OF THE EIS. 5-1

Page No.

APPENDIX A-1

2-1 DETERMINATION OF FORAGE ALLOCATION FOR WILDLIFE AND LIVESTOCK A-1
2-2 RANGE SUITABILITY FOR LIVESTOCK GRAZING A-10
2-3 GRAZING MANAGEMENT ALTERNATIVES BY ALLOTMENT. A-13
2-4 METHODOLOGY FOR DETERMINING RANGE CONDITION AND APPARENT TREND. A-19
2-5 FISHERIES HABITAT A-22
3-1 TABLE A, EXISTING RANGE CONDITION AND APPARENT TREND. A-27
3-1 TABLE B, FEDERAL THREATENED AND ENDANGERED, CANDIDATES FOR FEDERAL THREATENED AND ENDANGERED, OR STATE RARE PLANTS FOR THE NORTHERN IDAHO GRAZING EIS AREA. . . A-33
3-2 ENDANGERED, THREATENED, AND SENSITIVE WILDLIFE SPECIES IN NORTHERN IDAHO. A-34
3-3 SUMMARY OF BLM BIG GAME AND LIVESTOCK DIET STUDIES (SNAKE AND SALMON RIVER CANYONS A-35
4-1 PROJECTED PRODUCTION AND PROJECTED RANGE CONDITION METHODOLOGY. A-36
4-2 CHANGES IN STREAM CONDITION FROM PROPOSED ACTION ALTERNATIVE AND OTHER ALTERNATIVES (PROJECTED 20-YEAR IMPACTS) A-43
4-3 ECONOMICS A-47

GLOSSARY. G-1

REFERENCES. R-1

INDEX I-1

LIST OF TABLES

Table No. Title

2-1 LAND STATUS WITHIN GRAZING ALLOTMENTS 2-1
2-2 PROPOSED FORAGE ALLOCATION (AUMs) 2-3
2-3 ESTIMATED VEGETATIVE PRODUCTION AND USE 2-4
2-4 FORAGE CONSUMPTION (AUMs) 2-4
2-5 STREAMS PROPOSED FOR GRAZING MANAGEMENT STIPULATIONS FOR RIPARIAN PROTECTION AND IMPROVEMENT 2-7
2-6 PROPOSED FENCE CONSTRUCTION FOR STREAM PROTECTION 2-7
2-7 ESTIMATED PROJECT DEVELOPMENT AND MAINTENANCE COST - PROPOSED ACTION ALTERNATIVE . . 2-9
2-8 PROPOSED LAND TREATMENT - HERBICIDES. 2-10
2-9 GRASS AND CLOVER SPECIES FOR SELECTIVE SEEDING. 2-11
2-10 ALLOTMENTS IDENTIFIED FOR UTILIZATION STUDIES 2-12
2-11 SCHEDULE AND PRIORITIES FOR AMP PREPARATION 2-14
2-12 ESTIMATED PROJECT DEVELOPMENT AND MAINTENANCE COST - ALTERNATIVE 2. 2-17
2-13 COMPARATIVE IMPACT SUMMARY (PROJECTED 20-YEAR IMPACTS). 2-21
3-1 ACREAGE, SERIES AND PRESENT EROSION RATES OF MAJOR COMBINED SOIL ASSOCIATIONS OF THE COEUR D'ALENE DISTRICT. 3-3

LIST OF TABLES (CONT.)

Page No.

Table No. Title

3-2 PLANTS COMMONLY FOUND IN THE MAJOR BIOMES 3-5
3-3 RANGE CONDITION SUMMARY 3-7
3-4 SUMMARY OF APPARENT TREND 3-7
3-5 AVERAGE VEGETATIVE AND LITTER COVER VALUES. 3-8
3-6 PRINCIPAL NOXIOUS PLANT SPECIES FOUND ON PUBLIC LANDS WITHIN THE EIS AREA 3-8
3-7 IMPORTANT POISONOUS PLANTS OF THE EIS AREA. 3-9
3-8 STREAM CONDITION SUMMARY (STREAMS WITH FISH HABITAT). 3-15
3-9 NATIONAL REGISTER OF HISTORIC PLACES. 3-18
4-1 EXPECTED ACRES DISTURBED BY PROPOSED RANGE IMPROVEMENTS 4-7
4-2 20-YEAR PROJECTION OF AUMS BY MANAGEMENT ALTERNATIVE. 4-7
4-3 SUMMARY OF PRESENT AND FUTURE RANGE CONDITION AND TREND BY MANAGEMENT ALTERNATIVE . . 4-9
4-4 COMPARATIVE IMPACT SUMMARY (PROJECTED 20-YEAR IMPACTS). 4-10
4-5 SUMMARY OF CHANGES IN STREAM CONDITION FROM CURRENT SITUATION (PROJECTED 20-YEAR SUMMARY) 4-14
4-6 RELATIONSHIP BETWEEN SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY AND THE IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES 4-32
5-1 LIST OF PREPARERS 5-2
5-2 AGENCIES AND INTEREST GROUPS AND INDIVIDUALS WHO WILL RECEIVE COPIES OF THE EA. . . . 5-4

LIST OF FIGURES

Figure No. Title

1-1 EIS AREA ACREAGES 1-2
3-1 SALMON RIVER CANYON LANDS (PHOTO) 3-2
3-2 SALMON RIVER CANYON LANDS (PHOTO) 3-2

CHAPTER 1

NEED FOR THE PROPOSED ACTION

CHAPTER 1

NEED FOR THE PROPOSED ACTION

This Environmental Impact Statement (EIS) is prepared to assist the decision maker and public in assessing the environmental, social, and economic impacts of four alternative grazing management programs including the proposed action being considered for the public lands administered by the Bureau of Land Mangement (BLM), Coeur d'Alene District, Idaho. The EIS area includes all or portions of 11 counties in the panhandle of northern Idaho. Of the total 14 million acres in this area, approximately 271,425 acres (2%) are administered by the BLM. Of the BLM-administered land, 121,031 acres (less than 1%) are included within grazing allotments and are the subject of this assessment. Forage is proposed to be allocated for livestock use on about 58,700 acres (.4% of the acreage in the Northern Idaho EIS Area).

The purpose of the grazing management program is to manage the public range lands under the principles of multiple use and sustained yield. Objectives of the proposed management include improving 8,808 acres of poor or fair condition range to fair and good condition within 20 years and improving approximately 8 miles of poor condition riparian habitat to good condition within 15 years.

SCOPING

The scope of the environmental impact statement (EIS) was determined through informal public contact and eight public meetings held in January 1980. A description of the alternatives was sent to governmental organizations, interest groups, industry representatives, and other concerned individuals in April 1980. The public was asked to identify the issues they felt required consideration in the EIS.

Ranchers were concerned with the effects that the proposed forage allocation, and adjustments in turnout date would have on adjacent private lands and on the ranchers' income. Other respondents were concerned with the effects the proposed action and alternatives would have on wildlife habitat, including anadromous fisheries. (Environmental analysis has concluded that there would be no significant impacts from implementation of the proposed action or alternatives. See Chapter 2, Comparative Analysis of Impacts.)

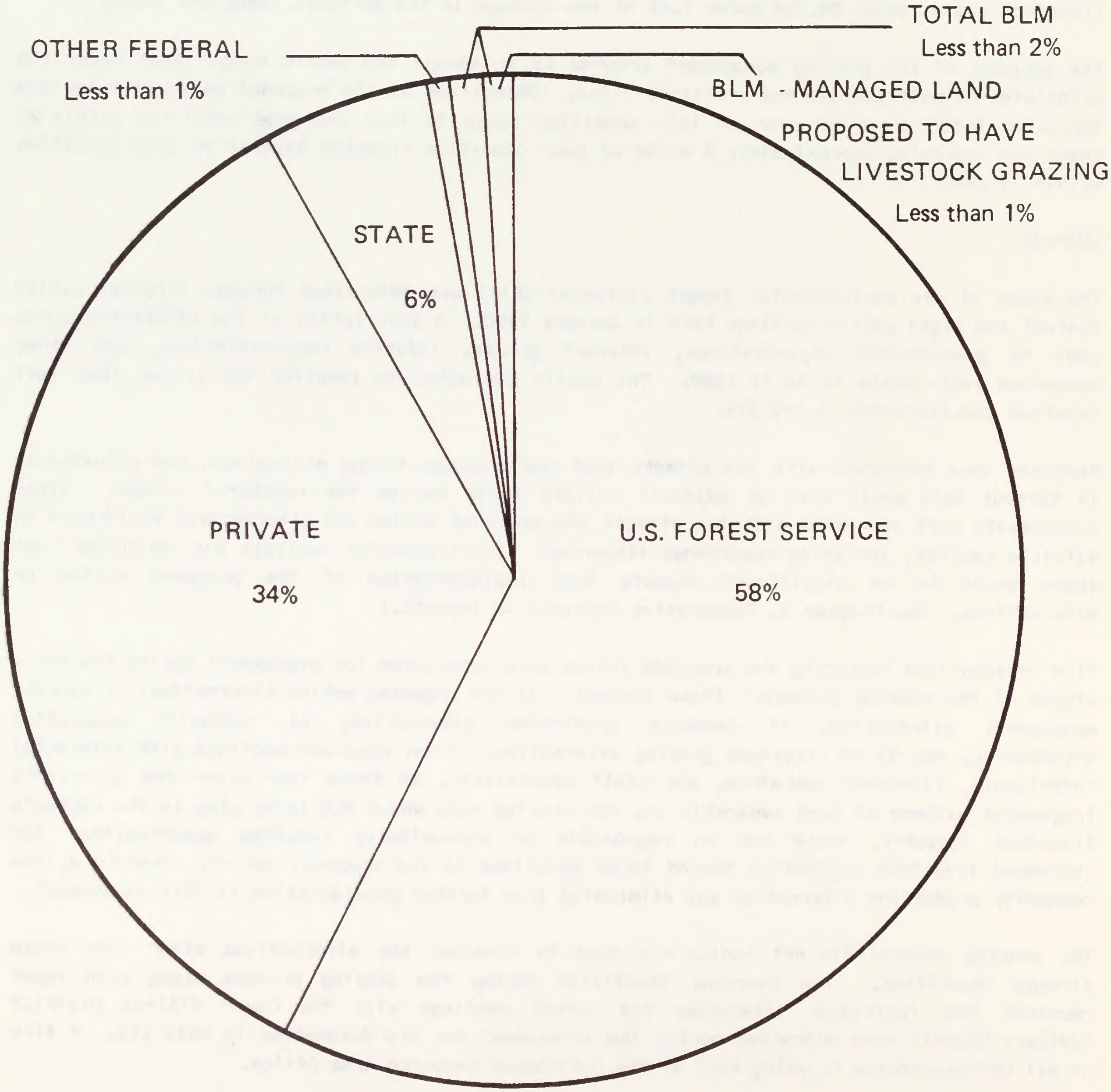
Five alternatives including the proposed action were considered for assessment during the early stages of the scoping process. These include: 1) The proposed action alternative, 2) current management alternative, 3) resource protection alternative, 4) commodity production alternative, and 5) no livestock grazing alternative. After numerous meetings with interested individuals, livestock operators, and staff specialists, we found that given the district's fragmented pattern of land ownership and the limited role which BLM lands play in the region's livestock industry, there are no reasonable or economically feasible opportunities for increased livestock production beyond those described in the proposed action. Therefore, the commodity production alternative was eliminated from further consideration in this assessment.

The scoping process did not indicate a need to consider any alternatives other than those already identified. The concerns identified during the scoping process along with imput received from individual interviews and formal meetings with the Coeur d'Alene District Advisory Council were addressed during the assessment and are documented in this EIS. A file of all correspondence is being kept at the Cottonwood Resource Area Office.

CONTEXT

It is important to realize that the percentage of acreage and forage provided from BLM lands makes up a relatively small portion of the total for the livestock industry in northern Idaho. Therefore, the proposed action alternative and other alternatives incorporate a cooperative approach in which the BLM and other public land agencies would work closely with the lessees to maintain a viable livestock operation, while ensuring the protection of the resource base. The significance of the grazing program is put into perspective by Figure 1-1.

Figure 1-1
EIS AREA ACREAGES



SOURCE: BLM, Coeur d'Alene District, URA 1979

CHAPTER 2

ALTERNATIVES INCLUDING THE PROPOSED ACTION

CHAPTER 2

ALTERNATIVES INCLUDING THE PROPOSED ACTION

PROPOSED ACTION ALTERNATIVE (BLM'S PREFERRED ALTERNATIVE)

The Bureau of Land Management (BLM) proposes an improved grazing management program for 172 allotments encompassing 121,031 acres of public lands in northern Idaho (45 percent of the BLM lands in the EIS area). Approximately 150,394 acres of BLM administered lands are considered to be unsuitable for livestock grazing; however, land uses such as wildlife habitat management, timber management, and recreation management will occur consistent with Bureau policy and the planning process. This document will address proposed grazing management programs on lands allocated for livestock grazing through the Bureau planning system. Refer to Table 2-1 for a summary of lands within grazing allotments.

TABLE 2-1

LAND STATUS WITHIN GRAZING ALLOTMENTS

STATUS	ACRES
Public (BLM)	121,031
State	98,398
Private 1/	428,533
Total	647,962

1/ This figure was derived by tabulating the adjacent preference lands indicated on the grazing lease applications. Many of the lessees indicated only those private lands which would enable them to qualify for BLM grazing privileges on public lands. Consequently, a complete tabulation of private lands is not available and the actual acreage is greater.

SOURCE: BLM, Coeur d'Alene District, 1981.

The objectives of the proposed action were developed through the BLM's land use planning process which included opportunity for public input participation. Individual resource objectives and recommendations were considered and some were modified to develop the most viable multiple use plan. Selected objectives that the proposal is designed to achieve are as follows:

1. Improve one-half of the 3,840 acres of poor condition range to fair condition in 20 years. Improve one-half of the 13,776 acres of fair condition range to good condition in 20 years.

2. Increase annual livestock forage production by 20 percent (from 6,684 AUMs to 8,020 AUMs) in 20 years.

3. Improve one-half of the 15.5 stream miles in poor stream condition to fair or better stream condition in 15 years.

4. Provide for the present and future habitat requirements of wildlife populations through allocation, maintenance and improvement of riparian areas, and implementation of improved grazing management. Allocate and maintain 1,004 AUMs of forage for big game ungulate use. The BLM developed the wildlife population objectives after consultation and coordination with Idaho Department of Fish and Game (IDFG).

5. Provide for the protection and conservation of threatened and endangered plants and animals.

6. Provide for the protection and enhancement of riparian and aquatic ecosystems, particularly for the benefit of anadromous fish species.

The proposed grazing management program includes:

1. Allocation of vegetation for both consumptive and nonconsumptive uses.

2. Implementing cooperative allotment management plans (AMPs) on 14 allotments totaling 52,714 acres of public lands.

3. Continuing the allotment management plan (AMP) on allotment 6261 totaling 1,120 acres.

4. Establish proper season of use and stocking rate on 157 allotments totaling 67,197 acres of public lands.

5. Identification of estimated range improvements, land treatments, and maintenance required for the existing improvements and land treatments.

6. Coordination with other resource programs; other federal, state, and county agencies; and the public land users.

7. Monitoring programs for trend, utilization, actual use, water quality, aquatic wildlife, and other programs in accordance with BLM policy.

Vegetation Allocation

Table 2-2 shows the AUM allocations between wildlife and livestock under the proposed action alternative. (Refer to Appendix 2-1 for the methodology used for allocating forage.)

Under the proposed action alternative, existing use would continue on allotments where over 80 percent of the public land is in high-fair or better range condition and where less than 10 percent is in a downward trend. If range condition and trend standards are not being met, adjustments in presently authorized use would be based on vegetation inventories.

Forage would be allocated to livestock, elk, and deer on a sustained yield basis. (Forage allocation for livestock and wildlife by allotment are shown in Appendix 2-1, Table A.) Consumptive vegetation allocations as shown in the appendix were determined by considering animal numbers, forage requirements, and dietary preference and the physiological requirements of the vegetation. Nonconsumptive vegetation would be available for small game and nongame wildlife, watershed protection, aesthetics, and other nonconsumptive uses. Tables 2-3 and 2-4 provide a summary of vegetation allocation within the Environmental Impact Statement (EIS) area.

Proposed levels of livestock use on public lands would initially decrease on 41 allotments and remain unchanged on 128 allotments. Following implementation of the proposed action, authorized livestock use within the EIS area would be reduced by 863 AUMs (11 %). If future BLM studies or monitoring indicate that conflicts between livestock and wildlife occur under present or future stocking levels, adjustments in livestock use will be initiated to eliminate the conflict.

TABLE 2-2
PROPOSED FORAGE ALLOCATION (AUMs) 1/

	Livestock	Wildlife In Competition with Livestock 2/	Wildlife Not In Competition with Livestock 3/
15 Intensively Managed Allotments (AMPs)	3,069	16	310
157 Less Intensively Managed Allotments (Non-AMPs)	3,615	50	628
TOTAL	6,684	66	938

1/ All figures are expressed in terms of livestock animal unit months (AUMs). See Appendix 2-1 for determination of forage allocation for wildlife and livestock.

2/ Allotments are in low-fair or poor condition. Competition for forage occurs between livestock and wildlife. The proposed forage allocation for livestock represents a reduction in existing livestock forage allocations.

3/ Allotments are in high-fair or better range condition. No significant competition for forage occurs between livestock and wildlife because they are separated by space, time and dietary preference with the existing level of livestock use. No reductions in existing forage allocations to livestock are proposed.

SOURCE: BLM, Coeur d'Alene District, 1981.

Allotment Management Plans (AMPs)

Allotment management plans (AMPs) are proposed to be incorporated on 15 allotments totaling 53,834 acres of public lands with an initial allocation of 3,069 AUMs of livestock forage. The Coeur d'Alene District would prepare AMPs on 14 allotments and continue with the AMP on allotment 6261. The AMPs were proposed for one or more of the following reasons:

1. Allotment has high resource values that can be maintained or improved through intensive management.

2. Relatively large amount of public lands are found within the allotment.

3. Lessee has requested implementation of an AMP.

4. Large amount of poor condition range are found within the allotment.

5. Conflicts with other resources are occurring or have a high potential of occurring.

Due to the large amount of private lands intermingled with BLM lands, it is not feasible to initiate AMPs without coordination and cooperation with the lessee. In order for AMPs to work,

TABLE 2-3
ESTIMATED VEGETATIVE PRODUCTION AND USE 1/
(POUNDS OF VEGETATION/PERCENT OF ESTIMATED TOTAL ANNUAL PRODUCTION)

User	Proposed Action	Alternative #1 Current Management	Alternative #2 Resource Protection	Alternative #3 No Livestock Grazing
Livestock	5,347,200/8%	5,758,400/9%	5,028,000/8%	0/0
Mule Deer	1,384,000/2%	1,272,000/2%	1,384,000/2%	1,384,000/2%
White-tailed Deer	316,000<1%	284,000/<1%	316,000/<1%	316,000/<1%
Elk	552,615/1%	534,153/1%	552,615/1%	552,615/1%
Estimated NonConsuptive 2/	58,796,568/89%	58,268,630/88%	59,145,768/89%	64,147,768/97%
Estimated Total Annual Production 3/	66,396,383/100%	66,396,383/100%	66,396,383/100%	66,396,383/100%

1/ The figures for the total vegetative production are estimates.
2/ Figure includes watershed protection, aesthetics, wildlife habitat cover requirements and plant needs.
3/ Figure determined by the summation of production figures for grassland, meadow, and conifer types.

SOURCE: BLM, Coeur d'Alene District, 1981.

TABLE 2-4
FORAGE CONSUMPTION (AUMs)

User	Proposed Action	Alternative #1 Current Management	Alternative #2 Resource Protection	Alternative #3 No Livestock Grazing
Livestock	6684	7198	6285	0
Wildlife	1004	1004	1004	1004
Total AUM's	7688	8202	7289	1004

SOURCE: BLM, Coeur d'Alene District, 1981.

the private and public lands must be managed as one unit. The Soil Conservation Service (SCS) would have an active part in coordinating and developing BLM, Idaho Department of Lands (IDL), U.S. Forest Service (USFS), Bureau of Indian Affairs (BIA), and private lands into a single plan with cooperation of the lessee. The BLM would be the lead agency in developing AMPs on allotments 6152, 6206, 6233, 6240, 6284, and 6289. The SCS would be the lead agency in AMP development on allotments 6129, 6195, 6241, 6247, 6260, 6279, 6281, and 6293. If the lessee does not want to develop a cooperative AMP, a grazing treatment would be implemented to the extent possible for public land within the allotment. Implementation of AMPs would follow the completion of the EIS and the land use plan.

One allotment (6261) containing 1,120 acres is presently managed under an AMP. This AMP has been in effect since 1973 and is grazed as a three-pasture rest-rotation system with one pasture on BLM lands and two pastures on USFS lands. The BLM proposes to continue the existing grazing management on this allotment.

(Refer to Appendix 2-3 for specific grazing treatment, season of use, and authorized AUMs for each allotment.) The rationale of why each allotment was chosen for a specific intensity of management is on file at the BLM Cottonwood Resource Area Office.

Non-AMPs

Proper season of use and stocking rates would be established on 157 allotments encompassing 67,197 acres of public lands and 3,615 AUMs of livestock forage would be allocated initially. Non-AMP grazing management was proposed for one or more of the following reasons:

1. Current grazing management is resulting in good range condition with a stable or upward trend.

2. Absence of conflicts with other resources such as watershed, wildlife, recreation, etc.

3. Area is best suited for annual seasonal grazing because of lessee's existing grazing operation, topography, and vegetation.

4. Small amount of public lands.

Grazing Treatments

Three grazing treatments (A through C) are proposed. Season of use for the three treatments are allotment specific as determined by elevation, aspect, range sites, plant phenology, and coordination with the lessee.

Treatment A (Rest)

Rest one full growing season at least once every two years. Rest during the growing season allows for increased vigor, reproduction, and seedling establishment of desirable forage species. The rest treatment also increases the production of litter which helps stabilize the soil, increases water infiltration, and reduces evaporation. Increases in forage production and improved range condition should be realized following implementation of this treatment.

Treatment B (Deferred Grazing)

Defer livestock grazing during the same stage of plant growth of key forage species at least once every 3 years. Grazing deferment allows forage species to be rested during the most active period of growth. Heady (1975) reports, "Deferment permits gain in plant vigor, increased seed production, storage of food materials in root and stem, and generally improved health of the range."

Treatment C (Annual Seasonal Grazing)

Treatment C is an annual seasonal grazing treatment that authorizes grazing on the same area during the same period each year. Livestock use would be made during the spring, summer, fall, or winter. The allocation of forage is based on current range condition and the biological requirements of key forage species (refer to Appendix 2-4).

Grazing systems are not yet designed for the allotments in the area. After consultation with the livestock operators and other interested parties, BLM would design grazing systems for the 14 AMP allotments using the grazing treatments described previously.

In order for the proposed grazing treatments to be implemented on BLM lands, cooperation will be needed from the operators in order to manage the remaining acres within their allotment in a manner compatable with the proposed treatments.

Additional Management Measures

Lessee herding and riding would be used to break up concentrated livestock use in riparian areas. Salt would be placed away from riparian areas and meadows to reduce livestock concentrations. Sheep would not be trailed in "tight bands" to and from water. "Loose herding" of sheep is proposed for all riparian areas.

When forage is decreased on private land because of fire or some other catastrophic occurrence, the authorized officer in accordance with 43 CFR 4110.3 and the District Land Use Plan may allocate additional forage from public land for livestock grazing use on a nonrenewable basis.

Cancel grazing privileges in part on four allotments that have leased public lands adjacent to Lolo Creek. The effected allotments are listed as follows: 6143 (100 acres), 6167 (582 acres), 6214 (591 acres), 6224 (251 acres), and 6271 (293 acres). The acreage to be reduced is unsuitable for livestock grazing. The Lolo Creek canyon provides valuable big game and fish habitat that should be protected and maintained in a high quality condition. At present, very light livestock grazing occurs in this area because of the steep and rugged topography.

To improve riparian habitat, 25.0 miles of streams (see Table 2-5) would have additional special management actions initiated. These actions would include the following:

1. On 10.1 miles of stream, 2.7 miles of drift fences would be placed along and perpendicular to streams to reduce livestock trailing along streams. See Table 2-6 for the number of miles of stream to be effected and the number of miles of fence to be constructed.

2. Where needed, trees and shrubs would be piled or constructed on stream banks to reduce livestock use along streams that have poor and fair stream bank stability (refer to Appendix 2-6). These structures would be made from trees and shrubs at least 10 feet in length with limbs left intact. They would be laid along the stream bank about 5 feet apart. The butt end of the trees and shrubs would be cabled down and secured with a post. The top end of the tree would extend slightly into the stream and be angled toward the down stream flow.

3. Where needed, stream banks in poor condition would be rehabilitated by planting suitable grasses, forbs, and shrubs (see Table 2-5).

TABLE 2-5
STREAMS PROPOSED FOR GRAZING MANAGEMENT STIPULATIONS FOR RIPARIAN PROTECTION AND IMPROVEMENT

Stream Name	Allotment	Stream Miles
Robinson Creek	6016	1.0
Cottonwood Creek	6195	1.5
Eagle Creek	6279	2.1
China Creek	6279	0.5
Trail Creek	6245	1.4
American River	6233	1.5
	6261	2.5
W. Fk. American River	6173	1.4
Little Elk Creek	6212	.8
Buffalo Gulch	6146	1.3
	6233	1.2
	6239	.2
Maurice Creek	6233	1.2
Whiskey Creek	6233	1.2
Cottonwood Creek	6160	.2
Big Creek	6158	.9
Little Canyon Creek	6152	2.2
Big Canyon Creek	6155	.4
	6206	2.3
	6209	.3
	6220	.9
	Total	25.0

SOURCE: BLM, Coeur d'Alene District, 1981.

TABLE 2-6
PROPOSED FENCE CONSTRUCTION FOR STREAM PROTECTION

Stream	Allotment	Miles of Stream on Public Land	Miles of Fence
American River	6261	3.0	1.0
Little Canyon Creek	6152	2.1	0.7
Cottonwood Creek	6195	1.5	0.5
Big Canyon	6206	2.3	0.3
	6209	0.3	0.1
	6220	0.9	0.1
Total		10.1 miles	2.7 miles

SOURCE: BLM, Coeur d'Alene District, 1981.

Implementation and Maintenance of Range Improvements and Land Treatments

Existing range improvements consist of 16 springs, 49 miles of fence, 23 cattleguards, 5 reservoirs, and 900 acres of land treatments (noxious weed control). Additional range improvements would be implemented as part of AMP development. The exact number of improvements has not been determined. However, Table 2-7 gives an estimate of the number of facilities needed and their cost for implementation of the proposed action.

Materials and labor for management facilities on intensively managed allotments would be furnished by the BLM. Maintenance of fences and spring developments would be the responsibility of the lessee. Noxious weed treatments would be the responsibility of the BLM. Site-specific design criteria would be imposed on all land treatments, the details of which would be determined during AMP development. All improvements must meet BLM design specifications. Details of construction specifications may be reviewed in the BLM Cottonwood Resource Area Office.

Management facilities on non-AMP allotments would be provided, constructed, and maintained by the lessee. The BLM would supply materials for construction of grazing management facilities when serious resource conflicts not previously realized are identified which can be corrected through installation of facilities. Construction would conform with BLM specifications.

Project Development and Design Criteria

Spring Development

Water would be collected at the spring source by installing perforated pipe and collection box and would be piped to water troughs for livestock use. Water would be provided for wildlife either at the spring source or inside a fenced overflow area. Approximately 50 percent of the spring sources would be fenced. Where necessary to maintain water at the spring source, float valves would be installed to prevent constant drainage of the spring. Springs would not be fenced where it is physically impossible due to steep or rocky terrain. The source of existing spring developments would be fenced where possible to protect identified cultural resource values. Wildlife escape devices would be installed on all water troughs.

Water Catchment

Dams would be constructed along ephemeral drainages to impound seasonal runoff for livestock and wildlife. Reservoir capacity would range from 0.1 to 0.3 acre-feet. A core trench would be excavated across the drainage and a dam built with fill material obtained from the impoundment area or, if needed, from nearby sites. If needed, catchment basins would be sealed with bentonite clay or other special clays to reduce seepage. The reservoirs would be fenced where terrain allows and water piped to livestock watering troughs outside the fenced areas. Impoundments built in gently sloped areas would have fences constructed so as to permit limited livestock access to the shoreline. Restricting or prohibiting grazing around the perimeter of reservoirs increases nesting and escape cover for wildlife.

Fence Construction

Fences would be constructed according to BLM design specifications to delineate allotment boundaries; divide allotments into pastures; and where necessary to exclude livestock from springs, reservoirs, and selected streams. Fences would be constructed to control livestock without adversely affecting the movement of elk and deer. Woven wire fences would not be constructed in the EIS area except for study exclosures. Existing fences that create problems for wildlife movement would be modified to meet BLM design specifications. When possible, fence lines would be located below ridge lines to reduce skyline contrast and

TABLE 2-7
ESTIMATED PROJECT DEVELOPMENT AND MAINTENANCE COST
PROPOSED ACTION ALTERNATIVE

Project	Proposed Units	Unit Cost	Total Cost	Existing Projects	Maintenance Responsibility	Annual Maintenance Cost/Unit	Annual Maintenance Cost (Existing and Proposed)
Fence (mi.)	25.5	$2,500	$ 63,750	95	Lessee	$80	$ 9,640
Spring Developments (no.)	30	$1,000	$ 30,000	8	Lessee	$50	$ 1,900
Catchments (no.)	7	$4,000	$ 28,000	5	BLM	$50	$ 600
Cattleguards (no.)	10	$1,750	$ 17,500	7	BLM	$50	$ 850
Fence-Stream Protection (mi.)	2.7	$2,500	$ 7,290	0	BLM	$80	$ 216
Noxious Weed Spray (ac.)	1900	$ 22	$ 41,800	900	BLM	0	0
Total Cost			$188,340				$13,206

SOURCE: BLM, Coeur d'Alene District, 1981.

maintain visual quality. Where fences cross existing roads, either gates or cattleguards would be installed.

Land Treatment

Approximately 2,900 acres within the EIS area are infested with noxious weeds. Approximately 1,300 acres of this total are infested with yellow starthistle (Centaurea solstitalis). Yellow starthistle is classified as a noxious weed in Idaho, has no forage value for livestock or wildlife, and is poisonous to horses. These areas would be sprayed for control under a coordinated herbicide spray program with adjacent landowners.

Goatweed (Hypericum perforatum) is found on approximately 1,000 acres of public land within the EIS area. It is presently being biologically controlled by the beetle Chrysolia hyperci. No further control methods are proposed. Other areas to be treated for control are small scattered patches of Scotch thistle (Onopordum acanthium) (150 acres), Canada thistle (Cirsium arvense) (200 acres), mediterranean sage (Salvia aethiopis) (100 acres), and crupina (Crupina vulgaris) (150 acres). The acreage to be treated is small; therefore, the increase in AUMs will be minimal. However, this action is intended to prevent further infestations. Depending on the species to be controlled, one or more of the following herbicides listed in Table 2-8 would be used.

TABLE 2-8
PROPOSED LAND TREATMENT-HERBICIDES

Chemical	Season of Use	Target Vegetation
2, 4-D	April - May	Mediterranean Sage Canada Thistle
2, 4-D	Sept. - Oct.	Mediterranean Sage
Picloram	April - May	Yellow Starthistle Scotch Thistle Canada Thistle Crupina
Dicamba	April - May	Crupina

SOURCE: BLM, Coeur d'Alene District, 1981.

Other Environmental Protection Agency (EPA) approved herbicides may be substituted for these herbicides if it has been determined that they provide better control and/or are environmentally safe.

Prior to application of chemicals, BLM would obtain clearance with the U. S. Department of the Interior (USDI) Pesticide Review Committee. They must approve any application of chemicals on more than 640 continuous acres by a federal agency and any application of a chemical on the USDI restricted list, regardless of the size of the treatment area. By cooperative agreement, review and comment would be obtained from the Idaho Department of Fish and Game (IDFG) prior to the application of chemicals. For additional information see the various herbicide application environmental assessments on file at the Cottonwood Resource Area office.

Seeding

During the activity planning (development of AMPs) it may be determined that multiple use objectives (improving watershed conditions and providing forage for wildlife and livestock) can be accomplished faster by seeding selective grass and clover species (see Table 2-9) than by good ecological condition. The effects of seeding specific sites would be analyzed in a site specific environmental assessment during AMP development.

TABLE 2-9
GRASS AND CLOVER SPECIES
FOR SELECTIVE SEEDING

Crested Wheatgrass (_Agropyron cristatum_)	Hard Fescue (_Festuca ovina_)
Intermediate Wheatgrass (_Agropyron intermedium_)	Timothy (_Phleum pratense_)
Orchard Grass (_Dactylis glomerata_)	Sand Dropseed (_Sporobolus cryptandrus_)
Tall Fescue (_Festuca arundinacea_)	White Dutch Clover (_Trifolium repens_)

Timber Harvest

Public land within grazing allotments are logged each year within the Coeur d'Alene District under the timber management program. Approximately 60 acres of the public land within grazing allotments which are logged have slopes less than 50 percent, have a timber canopy of greater than 60 percent, and are classified as unsuitable for grazing. Prior to timber harvest, coordinated grazing management-forest management plans would be initiated. It is expected that these unsuitable grazing lands would be temporarily converted into productive range with a carrying capacity of 2 to 6 acres per AUM. However, through the MFP process, it has been proposed that livestock grazing would be discouraged on timber harvested areas for approximately 5 years until minimum restocking has been accomplished. This would be accomplished through the use of salting and drift fences.

Increases in forage would be allocated to livestock following restocking. It is estimated that the additional forage created through timber harvest would be available for 15 years following restocking before it is lost through plant succession.

Many public lands within the EIS area are presently not leased for livestock grazing because of timber cover exceeding 60 percent. These lands are usually adjacent to state and U.S. Forest Service (USFS) lands which presently have grazing allotments. If timber harvest occurs on these public lands and converts them to suitable grazing lands, they may be leased for livestock grazing upon the findings of a site specific environmental assessment.

General Development Procedures

Under the proposed action alternative the following standard procedures and design features would be followed in construction of range improvements within the study area:

1. Archeological clearance would be required for each project before construction (National Historic Preservation Act of 1966; National Environmental Policy Act of 1969; Executive Order 11593; 36 CFR 800). In the event a site is present, mitigation measures will be developed to adequately minimize impacts to the cultural resource.

2. Threatened and Endangered plant survey and clearance would be required for each project site before construction or land treatments (Endangered Species Act and BLM Manual Section 6840) to ensure that the action would not significantly affect Threatened and Endangered species or their habitat.

3. Visual resource contrast ratings would be completed in the survey and design stage of all proposed developments (BLM Manual 8400), and appropriate mitigating measures would be implemented to meet the visual resource management (VRM) objectives of the area.

4. The watershed specialist would be consulted for on site investigations to determine areas of least impact. Improvements would be located in areas that least impair soil and watershed stability.

5. No facilities would be constructed in the wilderness study areas that would impair the areas' suitability for wilderness designation.

6. State of Idaho water rights would be obtained prior to development of springs and water catchment areas.

7. All land treatments or range improvement installations would be in accord with district stream buffer guidelines which are on file at the Coeur d'Alene District Office.

8. Livestock use would be limited for 5 years following timber harvest to ensure tree seedling establishment.

Monitoring Programs

The proposed action provides for the following resource evaluation studies:

Trend

Trend studies, according to BLM Manual 4412.22c, will be conducted in areas within each pasture before implementing a grazing system and during each grazing cycle. The studies will be used to determine browse condition, watershed erosion, and range condition in addition to trend.

Utilization

Studies which show the degree of vegetative utilization facilitate evaluation of grazing treatments on allotments. The AMP allotments would have utilization of forage measured by the key species method described in BLM Manual 4412.22. On allotments where utilization studies show utilization exceeding 50 percent, stocking rates would be adjusted following consultation with the lessee.

As funding and manpower are made available, allotments identified for non-AMPs would have utilization studies initiated (see Table 2-10). Allotments with high wildlife or watershed concerns would be of high priority. Areas that do not possess high resource values and are presently in a stable or upward range condition would be of low priority for utilization studies.

TABLE 2-10
ALLOTMENTS IDENTIFIED FOR UTILIZATION STUDIES

AMP's		Non-AMP's
6129	6260	6124
6152	6261	6138
6195	6279	6155
6206	6281	6156
6233	6284	6252
6240	6289	6282
6241	6293	
6247		

Actual Use

Each operator on an allotment would be asked to complete an actual use grazing report and file it with the district at the end of the grazing season. This report will show how many cattle grazed a particular pasture and for what period of time. From this information the actual forage use in AUMs can be calculated for each pasture and for each allotment.

Water Quality and Aquatic Wildlife

Effects of grazing treatments on discharge periods, discharge yields, water quality, stream bank stability, fisheries habitat, and sediment production would be measured periodically to determine if such were being effected by the proposed action. These studies would be conducted on major streams within the allotment.

Grazing Treatments

At the end of each grazing cycle, BLM would apply the AMP evaluation procedures in BLM Manual 4412.2 to determine whether the AMP is meeting its objectives. These studies typically include compilation of actual use, range trend, range/watershed condition, utilization, weather data, and wildlife habitat monitoring. A multidisciplinary team of resource specialists would assemble all study data to evaluate the effectiveness of the grazing treatment and determine the need for any adjustment in the treatment or stocking rate.

If revisions are needed to accomplish the multiple use objectives, they will be adopted. Such revisions might include changes in the grazing treatment, livestock number or period of use, increases in range development, or any combination of the preceding measures. Resource specialists would periodically visit allotments under less intensive management to conduct on-the-ground inspections to determine changes in resource conditions. If this monitoring identifies problems or conflicts, the allotment will be evaluated for a change in management.

Administrative Procedures

All grazing of public lands in the EIS area is authorized under Section 15 of the Taylor Grazing Act of June 28, 1934. The Federal Land Policy and Management Act of 1976 amends the Taylor Grazing Act and helps provide administrative guidance for grazing on public lands. Lands administered under Section 15 of the Taylor Grazing Act are those public lands found outside designated grazing districts. Leases are usually issued to qualified operators that control lands adjacent to the public lands. Refer to 43 CFR 4100 for a more detailed account of the federal grazing regulations.

Grazing leases would specify the grazing area, livestock numbers and kind, season of use, and AUMs. Bureau range personnel would make routine allotment inspections to ensure that livestock numbers and time of grazing for each pasture comply with that authorized by the lease. The BLM would control livestock trespass in accordance with the grazing regulations. Livestock would be eartagged as deemed necessary to aid in management or trespass control.

Implementation Schedule

Adjustments in livestock use would be implemented within 5 years after completion of this document. The scheduling of adjustments is as follows:

1. Reductions in AUMs of less than 15 percent would be completed by the second year after completion of the Northern Idaho Grazing EIS.

2. Reductions of 15 percent or greater would be completed by the beginning of the fifth grazing season after completion of this EIS. Required adjustments would normally be phased in three increments. Allotments with proposed AMPs having large AUM reductions would be given developmental priority (see Table 2-11).

AMPs would be prepared within a 4-year period immediately following adoption of the EIS. (Table 2-11 shows the schedule and priorities for AMP preparation.) It is anticipated that water development and fencing would be completed within 4 years allowing all grazing treatments to be functional by the 1986 grazing season. It is anticipated that all areas infested with noxious weeds would be treated by 1987. Timber harvest would occur on a continuing basis, and additional forage would be allocated once restocking is accomplished.

TABLE 2-11

SCHEDULE AND PRIORITIES FOR AMP PREPARATION

Year 1	Year 2
6129 Wildcat Creek	6152 Little Canyon I
6247 Dempsey Flat	6233 Whiskey Creek
6289 Craig Mtn. Wildlife Mgnt. Area	6279 Wapshilla Ridge

Year 3	Year 4
6195 Rattlesnake Ridge	6240 Partridge Creek
6206 Upper Big Canyon	6260 Wickiup Creek
6241 Denny Creek	6281 John Day
	6284 Marshall Mtn.

SOURCE: BLM, Coeur d'Alene District, 1981.

ALTERNATIVE 1 (NO ACTION -- CURRENT MANAGEMENT)

The no action alternative proposes no change in grazing from the present. The present level of livestock grazing would continue at 7,198 AUMs (see Appendix 2-3). No formal forage allocation is presently being made for wildlife. This alternative, therefore, would result in a 66 AUM deficiency for wildlife. See Tables 2-3 and 2-4 for a comparison of estimated vegetation production and use and forage consumption between alternatives.

Livestock would continue to use the 172 allotments under existing grazing practices. The existing Kirks Fork AMP (6261) would continue to be monitored and modified as needed to reach management objectives. No new AMPs would be implemented.

Existing improvements would be maintained in a useable condition. The BLM would not build any new improvements for livestock. See Table 2-7 for the number of existing range improvements and their maintenance costs. Land treatment through the use of herbicides would be used for the control of noxious weeds on 1,900 acres. Trespass control would take place on all allotments.

ALTERNATIVE 2 (RESOURCE PROTECTION)

The resource protection alternative proposes livestock management actions that would emphasize the protection, maintenance, and enhancement of the natural environment and resources. Wildlife habitat, watershed, and water quality improvement would have priority under this alternative. (Refer to Appendix 2-3 for a comparison of this alternative with the proposed action.) See Tables 2-3 and 2-4 for a comparison of estimated vegetative production and use and forage consumption between alternatives. Only the changes for the proposed action will be discussed. All other recommendations of the proposed action would be implemented as displayed in the proposed action unless indicated otherwise. This alternative would have the following forage allocation:

COMPETITIVE LIVESTOCK AUMs

	Proposed Use	Existing Use
Wildlife	1,004 AUMs	1,004 AUMs
Livestock	6,285 AUMs	7,198 AUMs
TOTAL	7,289 AUMs	8,202 AUMs

Alternative 2 proposes season-of-use dates that maximize vegetative response and minimize conflicts with wildlife on important big game winter and spring range. The turnout dates on 79 allotments would be approximately 2 weeks to one month later than described in the proposed action. (See Appendix 2-3 for the season of use by allotment under this alternative.)

Grazing would not be authorized on the following four allotments because of big game winter range values in Lolo Creek Canyon:

LOLO CREEK CANYON ALLOTMENT REDUCTIONS

Allotment No.	Acres	AUMs
6143	192	10
6167	682	34
6214a	460	53
6224	478	24
TOTAL	1,812	121

Grazing will not be authorized on a portion of the Whiskey Creek allotment because of big game winter range values.

WHISKEY CREEK ALLOTMENT REDUCTIONS

Allotment No.	Reduced Acres	Reduced AUMs
6233	600	9

Livestock grazing will not be authorized on a portion of the following allotments for introductions of bighorn sheep.

BIGHORN SHEEP INTRODUCTIONS

Allotment No.	Reduced Acres	Reduced AUMs
6195	2,000	75
6203	2,000	75
6279	4,000	135
TOTAL	8,000	285

Livestock grazing would be canceled on the following allotment for improvement of fish habitat.

LITTLE CANYON CREEK REDUCTIONS

Allotment No.	Reduced Acres	Reduced AUMs
6152	400	55

All allotments proposed for intensive management under the proposed action would be proposed for the same intensive management under this alternative except for allotment 6152. Allotment 6152 would have grazing privileges canceled for fish habitat improvement.

An estimated 21 additional miles of fence would be required to eliminate grazing on allotment 6152 and portions of allotments 6195, 6203, 6233, and 6279. See Table 2-12 for the estimated project development and maintenance cost for this alternative.

ALTERNATIVE 3 (NO LIVESTOCK GRAZING)

All grazing on BLM lands within the Coeur d'Alene District would be eliminated by the 1983 grazing season. Projects to benefit wildlife could be undertaken using wildlife habitat management funds. No grazing leases would be issued and no AMPs would be developed. All forage would be allocated to wildlife and nonconsumptive uses, including watershed protection, aesthetics, and maintenace of plant vigor. See Tables 2-3 and 2-4 for a comparison of estimated vegetative production and use and forage consumption between alternatives. The BLM would continue to manage the public lands on a multiple use basis, except for livestock grazing as authorized in the Federal Land Management and Policy Act of 1976.

No new improvements for livestock would be built on public lands. Existing improvements would be maintained by BLM only if required for other resource uses and would otherwise be removed. Livestock operators with investments in cooperative range development projects (i.e., fencing) would be entitled to appropriate salvage rights. Land treatments would be done only for noxious weed control to benefit wildlife or watershed values. Increased range supervision would be required to prevent livestock trespass on public lands.

TABLE 2-12
ESTIMATED PROJECT DEVELOPMENT AND MAINTENANCE COST
ALTERNATIVE 2

Project	Proposed Units	Unit Cost	Total Cost	Existing Projects	Maintenance Responsibility	Annual Maintenance Cost/Unit	Annual Maintenance Cost (Existing and Proposed)
Fence (mi.)	46.5	$2,500	$116,250	95	Lessee	$80	$11,320
Spring Developments (no.)	30	$1,000	$ 30,000	8	Lessee	$50	$ 1,900
Catchments (no.)	7	$4,000	$ 28,000	5	BLM	$50	$ 600
Cattleguards (no.)	10	$1,750	$ 17,500	7	BLM	$50	$ 850
Fence-Stream Protection (mi.)	2.7	$2,500	$ 7,290	0	BLM	$80	$ 216
Noxious Weed Spray (ac.)	1900	$ 22	$ 41,800	900	BLM	0	0
Total Cost			$240,840				$14,886

SOURCE: BLM, Coeur d'Alene District, 1981.

INTERRELATIONSHIPS

With BLM Planning

The alternatives including the proposed action are an outgrowth of BLM's land use planning process which, among other things, seeks to fulfill BLM's obligations to manage public lands to serve a variety of purposes.

The planning process begins with an inventory of basic resources known as unit resource analysis (URA) and progresses through the management decisions developed in the management framework plan (MFP). Basic resource data for the area is contained in the Emerald Empire URA (USBLM 1979) and the Chief Jospeh URA (USBLM 1979). Prior to making land allocations, staff specialist developed thresholds to ensure the protection of the resource values. These district thresholds, based on natural limits, existing laws, regulations, and Bureau policy provided the constraints under which the district's multiple use alternatives were developed. Guidelines pertinent to the livestock program are discussed in the section of this chapter titled Additional Management Measures. Proposed decisions are documented in MFP Step 2. These documents (Emerald Empire MFP, 1980 and Chief Jospeh MFP, 1980) and all other planning documents may be reviewed in their entirety at the BLM Coeur d'Alene District Office.

With Federal Organizations

Soil Conservation Service

The Soil Conservation Service (SCS) has often been the lead agency for coordination of grazing plans between ranchers and the BLM within the EIS area. They provide valuable assistance by inventorying private lands. A major problem with analyzing allotments for AMPs is the lack of inventory data on private lands. To properly manage intermingled public and private lands, they must be managed as one unit. The SCS was contacted before and during the development of the proposed action alternative and other alternatives for increased coordination in development of AMPs within the EIS area.

U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service conducts predator control in the EIS area under a joint agreement with BLM and Idaho Department of Fish and Game. Cooperative wildlife study projects and threatened/endangered species (Endangered Species Act of 1973) consultations are coordinated through the U.S. Fish and Wildlife Service.

U.S. Forest Service

The U.S. Forest Service (USFS) administers approximately 58 percent of the land within the EIS area. Since most of this land borders BLM administered lands, mutual cooperation benefits both agencies. The USFS and the BLM cooperatively manage allotment 6261 under an AMP with one pasture managed by BLM and two pastures managed by the Forest Service. Other operators within the EIS area use USFS lands in conjunction with BLM, state, and/or private lands to support a year-round grazing operation. Therefore, coordination of seasons of use is necessary between agencies. Planning goals and objectives are coordinated between the agencies since both have the same basic management goals for the administration of public lands.

Environmental Protection Agency

The Environmental Protection Agency (EPA) has been given initial responsibility for implementing Section 208 of the Federal Water Pollution Control Act Amendment of 1972. Under this act and Executive Order 12088, BLM is required to control water pollution that originates from large areas of public land (non-point source pollution). The EPA is working through area-wide water quality management agencies and local Soil Conservation Service offices to complete plans for controlling water pollution in problem areas. Once these plans are finalized, BLM will take whatever measures necessary to comply with their requirements.

National Park Service

The National Park Service and the BLM coordinate in the management of allotment 6293. Part of this allotment is within the boundaries of the Nez Perce National Historical Park.

With State Organizations

Idaho Department of Fish and Game

The wildlife program and vegetative manipulation (noxious weed control) projects are coordinated with the Idaho Department of Fish and Game (IDFG). The IDFG has cooperated with BLM in determining existing big game numbers and projecting desirable herd size for the EIS area by 1990. The IDFG is also cooperating in the development of habitat management plans (HMPs) within the EIS area.

Idaho Department of Lands

The Idaho Department of Lands (IDL) coordinates with BLM for land use planning on adjacent State lands. The IDL administers 98,398 acres of state land within BLM allotments in the EIS area. These lands are leased by livestock operators for grazing on 10-year terms.

Idaho Department of Parks and Recreation

The Idaho Department of Parks and Recreation has certain responsibilities for evaluating and enhancing recreation opportunities throughout the state. As a part of its program, the department has published a State Comprehensive Outdoor Recreation Plan (SCORP). This plan relies upon the continued use of lands administered by BLM or other agencies to fulfill many of the recreational needs within the state. These needs were considered in formulating the proposed action.

State Historic Preservation Office

The State Historic Preservation Office (SHPO) has been contacted in accordance with the Rangeland Programmatic Memorandum of Agreement which was ratified between the BLM and the Advisory Council on Historic Preservation, dated January 14, 1980. Final estimates of impacts of the proposal and alternatives have been discussed with the SHPO archaeologist.

Idaho Department of Health and Welfare

The BLM entered into a cooperative agreement in September, 1979, with the Idaho Department of Health and Welfare with a common objective of protecting water and air resources within the state. The agreement provides for information exchange and agency coordination in solving state water and air quality problems.

State Fire Protection Districts

State Fire Protection Districts provide fire protection for much of the BLM administered land.

With County Organizations

County Planning

Portions of 12 counties are included in the EIS area. The BLM is obligated to coordinate with local planning efforts. Potential conflicts with county planning and zoning were discussed during the Bureau planning process.

County Weed Departments

Before noxious weed control programs can be effective, they must be coordinated among adjacent land owners or managers. County weed control departments help coordinate these programs between private and BLM lands.

COMPARATIVE ANALYSIS OF IMPACTS

Based on the information and analysis presented in Chapters 3 and 4, a comparative analysis of the beneficial and adverse impacts of the proposed action and all alternatives is presented in Table 2-13.

The proposed action would decrease forage competition between wildlife and livestock. Conditions of the range would improve on allotments. Soil and watershed conditions would improve slightly. Wildlife habitat would improve; however, the improvement would not be substantial enough to cause significant increases in population levels. Livestock use would be reduced initially, but would be above present use levels in 20 years primarily as a result of increased forage production.

Alternative 1, no action, would result in the continuation of present trends. For the most part, overall resource condition would show a slight decline. This alternative would have no impact on the livestock operators.

Alternative 2, wildlife and watershed conditions, would cause the most beneficial improvement in range, soil, and water and wildlife habitat conditions. However, initial livestock use would be approximately 17 percent below current use levels and would not return to active preference levels within 20 years. This would create slightly greater economic impacts to livestock operators than the proposed action.

Alternative 3, no livestock grazing, would produce variable vegetative responses. Low productive sites and sites in poor ecological condition would show little improvement. Sites in high-fair or good ecological condition and those sites in high precipitation zones would show greater improvement. Wildlife habitat condition improvement would be similar to range condition improvement. Riparian and stream areas would show more improvement under this alternative than any other management proposal. Livestock operators would experience the most adverse economic impacts if this proposal is implemented.

TABLE 2-13
COMPARATIVE IMPACTS SUMMARY
(PROJECTED 20-YEAR IMPACTS)

Resource	Present Situation	Proposed Action	Alternative 1 Current Management	Alternative 2 Resource Protection	Alternative 3 No Livestock Grazing
Soils:					
Annual	(tons/acre/yr)				
Erosion Rate	.06	+	NC	+	+
Water Resources:					
Watershed Condition	good	+	-	+	+
Water Yield (ac/ft)	61,000	Decrease	NC	Decrease	Decrease
Water Use (ac/ft)	7.81	Increase	NC	Decrease	Decrease
Water Quality	good	+	-	+	+
Vegetation:					
Condition Class	(acres)				
Excellent	2,812	2,812	2,812	3,228	5,960
Good	12,593	16,408	12,719	16,441	16,333
Fair	13,775	11,361	13,846	10,523	8,138
Poor	3,843	3,413	3,646	3,280	2,592
Timbered	25,708	26,908	26,908	26,908	26,908
Unsuitable	62,300	60,129	61,100	60,651	61,100
Total	121,031				
Trend	(acres)				
Upward	590	3,574	590	5,091	11,587
Static	118,128	116,062	118,128	114,582	109,444
Downward	2,313	1,395	2,313	1,358	0
Total	121,031				
Wildlife Resources:					
Threatened and Endangered Species	Low populations unoccupied habitat	NC	NC	NC	NC
Sensitive Species					
River Otter	good	+	NC	+	+
Terrestrial Wildlife					
Elk	(acres)				
Total Affected	98,000	+	NC	+	+
Poor and Fair	10,800	9,000	10,800	8,400	2,400
Mule Deer	(acres)				
Total Affected	118,000	+	NC	+	+
Poor and Fair	18,000	15,000	18,000	14,000	4,000

TABLE 2-13, (Cont.)
COMPARATIVE IMPACTS SUMMARY
(PROJECTED 20-YEAR IMPACTS)

Resource	Present Situation	Proposed Action	Alternative 1 Current Management	Alternative 2 Resource Protection	Alternative 3 No Livestock Grazing
Wildlife Resources (Cont.)					
White-Tailed Deer	(acres)				
Total Affected	93,000	+	NC	+	+
Poor and Fair	9,000	7,500	9,000	7,000	2,000
Moose	(acres)				
Total Affected	8,200	+	NC	+	+
Poor and Fair	500	300	500	300	0
Bighorn Sheep	(0 acres occupied)	1,217	0	9,217	0
Turkey	Fair	+	-	+	NC
Grouse	Fair	+	-	+	+
Quail	Fair	+	NC	+	+
Chukar Partridge	Good	+	NC	+	+
Mourning Doves	Good	+	NC	+	+
Nongame Birds and Mammals	Fair	+	-	+	+
Riparian Associated Wildlife	Fair	+	-	+	+
Aquatic Wildlife					
Overall Aquatic Summary					
Fish Production	Fair	+	-	+	+
Fish Habitat	Fair	+	-	+	+
Water Quality	Fair	+	-	+	+
Anadromous Production Potential	(miles)				
Excellent	.6	.6	.6	.6	.6
Good	18.1	23.3	18.1	25.5	25.5
Fair	26.0	27.3	24.6	25.1	26.2
Poor	28.8	22.3	30.2	22.3	21.2
None	8.1	8.1	8.1	8.1	8.1
Streambank Stability					
Excellent	9.6	9.6	9.6	9.6	12.4
Good	40.6	53.4	39.4	55.6	59.1
Fair	26.7	18.6	24.3	16.4	10.1
Poor	4.7	0	8.3	0	0
Fish Habitat Suitability	(miles)				
Excellent	.7	.7	.7	.7	.7
Good	28.0	32.4	25.5	34.6	40.1
Fair	37.4	39.5	38.5	37.3	32.6
Poor	15.5	9.0	16.9	9.0	8.2

TABLE 2-13, (Cont.)

COMPARATIVE IMPACTS SUMMARY

(PROJECTED 20-YEAR IMPACTS)

Resource	Present Situation	Proposed Action	Alternative 1 Current Management	Alternative 2 Resource Protection	Alternative 3 No Livestock Grazing
Cultural Resources:		NC	NC	+	+
Livestock Grazing:					
Forage Allocation	(AUM's)				
Initial	7,198	6,684	7,547	6,285	0
20-year		7,661	7,175	7,160	0
Economics:					
Rancher Income					
Initial Change		-$2,900	0	-$5,200	-$40,000
20-Year Change		+$2,600	0	-$ 400	-$40,000
Secondary Income					
Initial Change		-$ 450	$400	-$1,100	-$14,000
20-Year Change		$1,100	0	$ 90	-$14,000
Range Improvements					
Installation Cost		$190,500	$42,000	$245,000	+$42,000
Maintenance Cost		$ 4,500	0	$ 6,200	0
Net Present Worth (regional)		+$50,000	$4,600	+$32,000	-$560,000
Employment Change		0	0	0	-5

+ Beneficial impact that is immeasurable.

NC No change from current levels is anticipated.

- Adverse impact that is immeasurable.

CHAPTER 3

AFFECTED ENVIRONMENT

CHAPTER 3
AFFECTED ENVIRONMENT

SETTING

The Environmental Impact Statement (EIS) area includes the northern panhandle of Idaho and lies within the Northern Rocky Mountain and the Columbia River Plateau physiographic provinces. This area, which is about 220 miles long by 70 miles wide, consists of gentle to moderately sloped mountains intersected by major river drainges. The cutting effect of the rivers has formed a slope - bench complex of steep, rugged canyons (see Figures 3-1 and 3-2).

The climate of the Coeur d'Alene District is associated with the southerly and easterly drift of weather systems that develop in the northern and central Pacific Ocean. In the winter, storms pass over the region causing a distinctly wet climate. During summer, however, storms pass farther north causing a relatively dry climate. In general, the eastward movement of the marine air keeps temperatues moderate except when continental high pressure reverses the general flow. These reversed flows bring periods of hot dry air in the summer and cold temperatures in the winter.

The following resources have been determined to have no effect on or to be uneffected by the proposed action alternative or any other alternative: topography, geology, mining, social values, agricultural lands, proposed Areas of Critical Environmental Concern (ACEC), air quality, visual resources, wilderness, and timber mangement.

Soils Resource

Most of the soils found within the grazing areas of the district are located on steep slopes, have good vegetation, and have very little erosion. Table 3-1 shows the major combined soil associations, their total acreages, and their present erosion rate for the district. A general soils map showing the combined soil associations is located inside the back cover pocket of this document. A detailed soil inventory is on file at the BLM Coeur d'Alene District Office and the BLM Cottonwood Area Office.

Soil erosion from lack of vegetative cover and soil compaction are the resource components most commonly effected by grazing activities. Approximately one-half of the total 16,400 tons per year erosion, or sediment loss, is estimated to come from association E, which includes most of the rangeland in the district. Little difference exists between the amount of vegetative cover in high-poor condition areas and excellent condition areas within this association. It is vegetative cover, not range condition, that makes the major difference in the amount of erosion. The amount of grazing taking place at the present is contributing little to erosion in the EIS area.

Construction of range improvements and landform characteristics of the slope-bench complex common in the Salmon and Snake River canyons have resulted in areas of concentrated livestock use. Soil compaction and erosion resulting from this concentrated use is not contributing significantly to soil degradation or loss. Phase I watershed data completed for the Coeur d'Alene District indicate that the erosion hazard over the EIS area is stable or slight with isolated areas showing a moderate erosion condition.

Water Resource

The public lands contain segments of many streams and rivers, but in only a few cases does

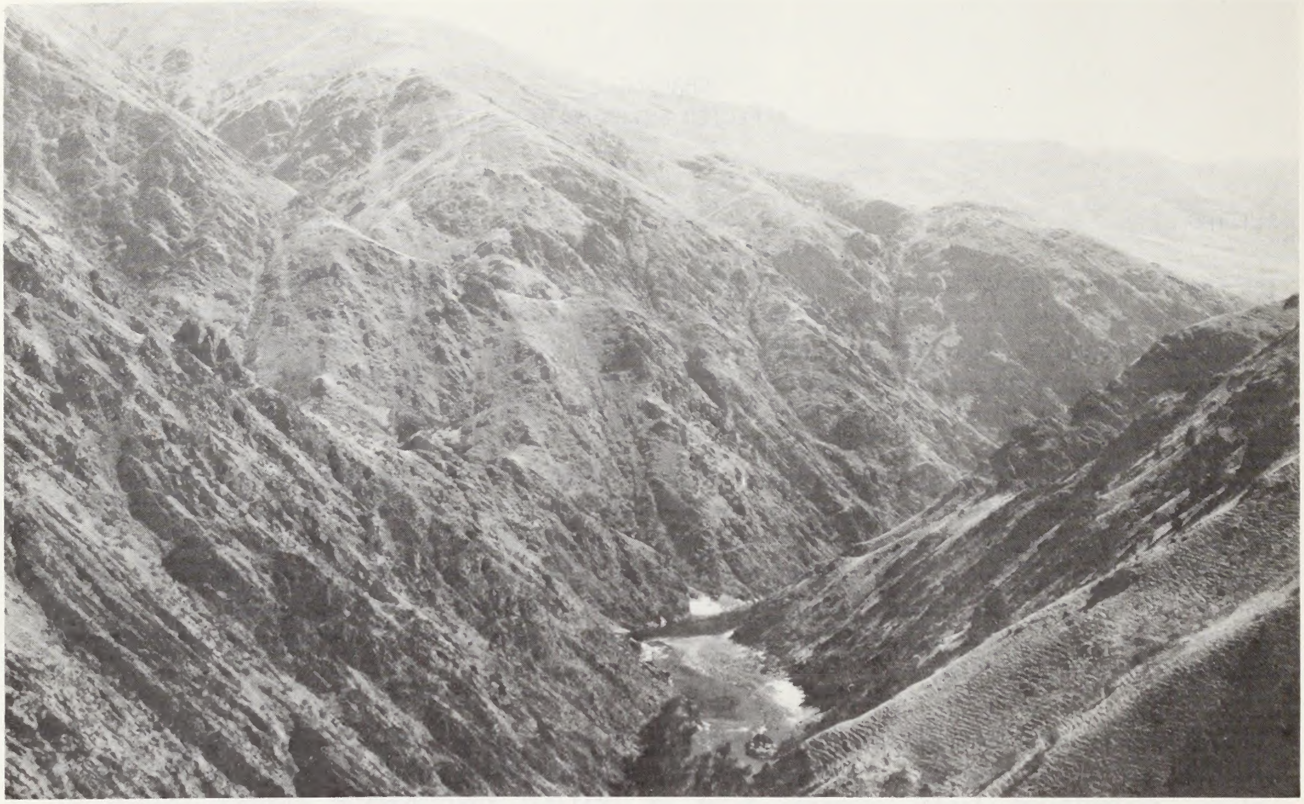


FIGURE 3-1. The Salmon River is very steep and rugged in places with a large amount of rock outcrops. Consequently, a large percentage of the canyonlands are classified unsuitable for livestock grazing.

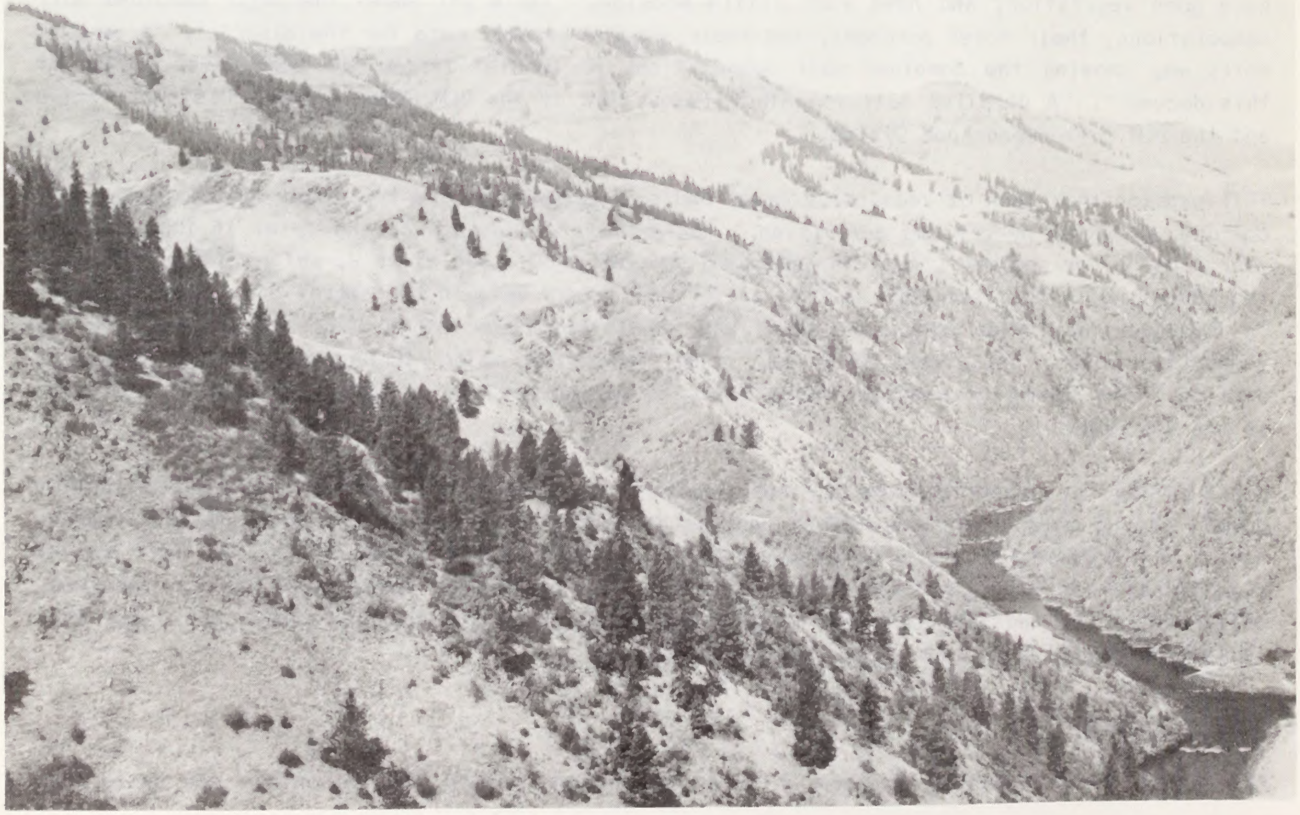


FIGURE 3-2. Very steep slopes and rock outcrops often restrict grazing adjacent to the Salmon River. Livestock grazing in this area is primarily at midslope.

TABLE 3-1

ACREAGE, SERIES AND PRESENT EROSION RATES OF MAJOR COMBINED SOIL ASSOCIATIONS OF THE COEUR D'ALENE DISTRICT

Symbol	Land And Geology	Present Erosion Tons/Year 1/	Major Soil Series and Miscellaneous Land Types	Acres	% of Area
A	Alluvial Fans and Terraces	30	Elmire, Franhampton, Rubson, Selle, Alluvial Land.	2,872	1
B	Foothills and Mountains (Glacial)	800	Artnoc, Cabose, Crash Idamont, Pend Oreille, Porthill, Stein, Treble, Wishbone, Rockland, Rock outcrop.	18,238	7
C	Foothills and Mountains (Belt formation)	4570	Ardenvoir, Brickel, Divers Dorb, Huckleberr, McCrosket, Molly, Tekoa, Rockland, Rock outcrop, Rubbleland.	115,764	43
D	Foothills and Mountains (Granitic)	2250	Brower, Garveson, Helmer Jughandle, Lochsa, Molly, Nakarna, Nazaton, Spokel, Suttler, Yokus, Rock outcrop.	56,903	21
E	Foothills, Mountains and Canyons (Basalt)	8750	Bluesprin, Brody, Gwin Klickson, Lawyer, Lick-skillet, Riggens, Tannahill, Wapshilla, Rock outcrop.	77,648	28
	Total	16,400		271,425	100

1/ Calculated by using the universal soil equation, by mapping unit.

SOURCE: BLM, Coeur d'Alene District, 1981.

public land make up a majority of a stream's length (also see Aquatic Wildlife section of this chapter). The major drainages are shown on Maps 3-1 and 3-2.

The precipitation and topographic features of northern Idaho cause water yields (runoff) to vary greatly. The annual water yield from public lands vary from zero inches to over 40 inches (Rosa 1968). The annual water yield from all the BLM lands is estimated to be 13.5 inches while for grazing lands it is only 6.0 inches. This equals about 305,000 acre feet per year or an equivalent flow of 422 cubic feet per second (cfs) for all the lands. For grazing lands it is about 61,100 acre feet per year or 84 cfs. When compared to the flows of the Snake or Pend Oreille rivers, the equivalent flow from BLM land is relatively insignificant. Water use of the BLM lands proposed for grazing activities is estimated to be 7.81 acre feet per year.

The water quality is generally very good in the northern region. The types of water quality problems affecting streams within allotments indicate that water quality in northern Idaho is not significantly effected by livestock operations (see Appendix 2-5).

Livestock management is mentioned as a minor upstream pollution source for the trend stations at Hells Canyon, Whitebird, Anatone, Spalding, and St. Maries.

Nonpoint pollution sources such as livestock, dryland farming, forest practices, and individual wastewater disposal impact many streams. However, livestock grazing on public lands has little effect on stream segments crossing public lands in the EIS area.

Vegetation Resource

Introduction

The vegetation communities of central and northern Idaho are of high variability and complexity due to changes in geology, soils, topography, precipitation, and past uses. Three biomes (grassland, conifer, and meadows) are found in the EIS area (Refer to the Soil-Vegetation Map in back cover pocket for the location of each biome in the EIS area.) Table 3-2 shows the plants commonly found in each major biome.

Grassland Type

The grassland type comprises 42 percent (50,861 acres) of the public lands within grazing allotments. Grasslands suitable for grazing encompass 32,677 acres with the remaining 18,184 acres deemed unsuitable. (Refer to Appendix 2-2 for a review of suitability methodology.) The grassland type is primarily located in the slope-bench complex of major river drainages within the southern half of the district. Species composition within the grassland type ranges from 70 to 85 percent grass, 15 to 25 percent forbs, and 1 to 5 percent shrubs. Bluebunch wheatgrass in the most common species within the grassland type. Other important forage species found within this type include Idaho fescue, sand dropseed, Kentucky bluegrass, and Canada bluegrass.

Meadow Type

The meadow type covers approximately 0.3 percent (approximately 350 acres) of the public lands within grazing allotments. This type is made up of both dry and semi-wet meadows. They range in elevation from 2,500 to 8,400 feet. The average vegetative composition is as follows: 80 to 90 percent grass and grass-like plants, 2 to 10 percent forbs, and 1 to 5 percent shrubs.

TABLE 3-2

PLANTS COMMONLY FOUND IN THE MAJOR BIOMES

	Grass	Forbs	Shrubs
Grassland Type			
	bluebunch wheatgrass	arrowleaf balsamroot	black hawthorn
	Canada bluegrass	biscuitroot	curl-leaf mountain mahogany
	cheatgrass	cinquefoil	
	Idaho fescue	dandelion	hackberry
	intermediate wheatgrass	fleabane	oceanspray
	Japanese brome	geranium	plains pricklypear
	Kentucky bluegrass	hairy vetch	poison ivy
	prairie junegrass	indian paintbrush	rubber rabbitbrush
	rattlesnake brome	locoweed	saskatoon
	red threeawn	lupine	serviceberry
	sandberg bluegrass	penstemon	smooth sumac
	sand dropseed	phlox	snowberry
		sego lily	Wood's rose
		wild onion	
		yarrow	
Meadow Type			
	bentgrass	cinquefoil	willow
	oatgrass	fleabane	
	sedges	gentain	
	tufted hairgrass	marsh marigold	
Conifer Type			
	bluebunch wheatgrass	American vetch	bitterbrush
	blue wildrye	beargrass	bitter cherry
	elk sedge	brackenfern	creambush
	Idaho fescue	cinquefoil	oceanspray
	mountain brome	clover	curl-leaf mountain mahogany
	pine reedgrass	heartleaf arnica	
	sedges	rose pussytoes	current
	trisetum	strawberry	elderberry
			myrtle pachistima
			ninebark
			Oregon grape
			redstem ceanothus
			Rocky Mountain maple
			rose
			sackatoon
			serviceberry
			scouler willow
			snowberry
			syringa
			white spirea

SOURCE: BLM, Coeur d'Alene, 1981.

Conifer Type

The conifer type encompasses approximately 57 percent (69,324 acres) of the public lands within grazing allotments. Timbered lands suitable for grazing contain 25,708 acres with the remaining 43,616 acres considered unsuitable. (Refer to Appendix 2-3 for a review of grazing suitability criteria on timbered lands.)

The conifer type is a broad grouping of timbered habitats varying from ponderosa pine series, which begin at approximately 1,600 feet in elevation, to subalpine fir series occurring at 8,400 feet. This type varies in grazing value by habitat type, slope, canopy cover, and successional stage.

Riparian Vegetation

Riparian vegetation in the EIS area is found associated with wet seeps; gradually sloped shoreline of reservoirs and catchment basins; outflow areas of springs; and along perennial streams. The BLM lands found within the Coeur d'Alene District contain 496 acres of riparian vegetation. Plants commonly found in this vegetative type include willow, birch, alder, cottonwood, rose, cattail, sedge, and grasses. Surveys conducted by the Coeur d'Alene District indicate that approximately 70 percent of the riparian areas are in excellent to good condition with the remaining 30 percent in fair to poor condition.

Season of Use

Early spring turnout dates have had a decided influence on the ecological condition of grasslands in the EIS area. Many of the gently sloped areas receive continuous livestock grazing through the spring growing season. This practice has resulted in a decline in vigor of desirable native forage species and a gradual replacement of the native perennial grasses by undesirable annual and perennial grasses.

Rangeland Condition

Rangeland condition is determined by comparing the current plant species composition to the potential natural (climax) plant community for that site. The rangeland condition rating describes the present state of health of the range (Stoddart and Smith 1955). (The methodology used in determining the condition class of lands within the district is described in Appendix 2-4. Table 3-3 provides a summary of the acres of vegetation found in each condition class within the Coeur d'Alene District. Appendix 3-1 Table A lists acreages by condition class within allotments.)

Apparent Trend

Vegetation condition ratings by themselves are of little use without knowing the apparent stability of the range trend. Range trend ratings are a means used to describe the direction of the present range condition on that site. The three possible trend catagories (upward, static, and downward) are determined by evaluating the effects of ungulate grazing on the vegetation and soils of the area. The factors of primary concern in determining trend are plant vigor; the rate of establishment of desirable and undesirable plant species; the rate of accumulation of plant litter; and the degree of soil movement over and above that considered natural for the site. A more detailed discussion of the methodology used in determining range trend can be found in Appendix 2-4.

Three techniques (photo trend plot, apparent trend, and estimates by professionals familiar with the area) were used to determine trend. All available trend information was considered prior to assigning apparent trend ratings to public lands within allotments. (Refer to Appendix 3-1 Table A for acres in each trend catagory within allotments.) Table 3-4 provides a summary of the acres in each trend class in the study area.

TABLE 3-3
RANGE CONDITION SUMMARY TABLE 1/

Excellent	2,812 acres	2%
Good	12,593 acres	10%
Fair	13,775 acres	11%
Poor	3,843 acres	3%
Timber	25,708 acres 2/	21%
Unsuitable	62,300 acres	52%
Total	121,031 acres	99% 3/

1/ Refers only to those lands which are or have previously been included in grazing allotments.
2/ This figure includes only those timbered acres which meet the Coeur d'Alene District grazing suitability guidelines.
3/ Difference due to rounding.

SOURCE: BLM, Coeur d'Alene District, 1981.

Table 3-4
SUMMARY OF APPARENT TREND

Upward	590 acres	1
Static	118,128 acres	97
Downward	2,313 acres	2
Total	121,031 acres	100%

SOURCE: BLM, Coeur d'Alene, 1981.

Cover

Cover as described in the Northern Idaho Grazing EIS includes basal, foliar, and litter cover values. Basal and litter cover values are given when considering grassland and meadow type plant communities. A combination of basal plus foliar and litter cover is given for conifer types.

Basal cover is that portion of the ground surface covered by the stems of grasses and forbs, usually measured one inch from the soil surface. Foliar cover refers to that portion of the ground surface covered by the leaves of woody plants as viewed from directly above. Only that portion of the plant below 4.5 feet is considered. Litter values refer to that portion of the ground surface covered by plant residue from previous growing seasons plus surface areas covered by moss. All values given are expressed as a percent of the total ground surface.

Vegetative and litter cover values were determined by averaging photo-trend information collected within the district from 1974 to 1980. Table 3-5 provides a listing of vegetative and litter cover values for the three vegetation types within the study area.

TABLE 3-5
AVERAGE VEGETATIVE AND LITTER COVER VALUES 1/

Vegetative Type	Vegetative Cover	Litter Cover	Total
Grassland	14	39	53
Meadow	58	34	92
Conifer	14	74	88

1/ Expressed in percent

SOURCE: BLM, Coeur d'Alene District, 1981.

Noxious and Poisonous Plants

Noxious weeds are usually associated with disturbance of vegetation or soil. Disturbance removes or weakens native plant species providing an area for establishment and possible spread of noxious weeds. The EIS area contains 19 noxious plant species; however, only 6 species are of primary concern. Refer to Table 3-6 for a listing of the important noxious plant species and the approximate number of acres infested by each species within the EIS area.

There are over 60 species of poisonous plants found within the EIS area, but only 22 species of concern. Refer to Table 3-7 for a listing of the major poisonous plant species.

TABLE 3-6
PRINCIPAL NOXIOUS PLANT SPECIES FOUND ON PUBLIC LANDS WITHIN THE EIS AREA

Noxious Plant Species	Acres
yellow starthistle (Centaurea solstitialis) 1/	1,300
goatweed (Hypericum perforatum) 1/	1,000
mediterranean sage (Salvia aethiopis)	100
crupina (Crupina vulgaris)	150
scotch thistle (Onopordum acanthium)	150
Canada thistle (Cersium arvense)	200
Total	2,900

1/ Plant is both a noxious weed and poisonous to domestic stock.

SOURCE: BLM, Coeur d'Alene District, 1981.

TABLE 3-7

IMPORTANT POISONOUS PLANTS OF THE EIS AREA

Columbia monkshood (*Aconitum columbianum*)
spreading dogbane (*Apocynum androsaemifolium*)
pursh locoweed (*Astragalus purshii*)
yellow starthistle (*Centaurea solstitialis*)
water hemlock (*Cicuta douglasii*)
Canadian thistle (*Cirsium arvense*)
poison hemlock (*Conium maculatum*)
Nelson's larkspur (*Delphinium nuttallianum*)
tall larkspur (*Delphinium occidentale*)
common horsetail (*Equisetum arvense*)
broom snakeweed (*Gutierrezia sarothrae*)
goatweed (*Hypericum perforatum*)
silky lupine (*Lupinus sericeus*)
ponderosa pine (*Pinus ponderosa*)
chokecherry (*Prunus virginiana*)
brakenfern (*Pteridium aquilinum*)
poison ivy (*Rhus radicans*)
puncture vine (*Tribulus terrestris*)
California false hellebore (*Veratrum californicum*)
mountain death camas (*Zygadenus elegans*)
foothill death camas (*Zygadenus paniculatus*)
meadow death camas (*Zygadenus venonosus*)

SOURCE: BLM, Coeur d'Alene District, 1981.

Threatened and Endangered Plants

Endangered species are those species that are considered to be in danger of extinction throughout all or a significant portion of their range. Threatened species are considered to be those species that may become endangered in the forseeable future. Rare plants are those species whose small numbers might decline further under adverse conditions.

Threatened and endangered plant inventories in 1979 and 1980 have identified one plant species which is formally classified as endangered. An additional seven plant species, which are candidates for federal listing as threatened or endangered, have been located in the EIS area. Surveys have identified 11 plant species of state rare status. Two plant species under review for federal threatened or endangered classification occur in habitat types similar to those found within the district. Plant species and varieties considered in these surveys were found in one or more of the following publications: Endangered and Threatened Wildlife and Plants: Review of Plant Taxa for listing as Endangered or Threatened Species (Federal Register/1980), Endangered and Threatened Plants of Idaho, A Summary of Current Knowledge (Henderson, et. al 1977), or herbarium records, listings in adjacent states, and distribution descriptions (Davis 1952 or Hitchcock et. al 1969). A list of the plants referred to in this section is presented in Appendix 3-1, Table B.

Terrestrial Wildlife

Introduction

The vegetation types and associated plant communities found in the EIS area provide a large variety of habitats for wildlife. The wildlife-vegetation relationships found in the EIS area are broad and diverse. There are 24 species of amphibians and reptiles, 228 species of birds, and 79 species of mammals known or likely to occur. A list of these species along with their season of use and preferred vegetation type in the area is available in the BLM Coeur d'Alene District Office.

Only threatened and endangered species and those species whose habitat and resulting populations could be significantly impacted by the proposed action alternative or other alternatives will be discussed in the EIS. The other important wildlife species present will not be discussed in further detail because 1) species occurrence is incidental or limited; and 2) the species are not expected to be impacted by the proposed action or alternatives.

Endangered, Threatened, and Sensitive Species

There are three endangered animal species (the bald eagle, peregrine falcon and Rocky Mountain wolf) and one threatened species (the grizzly bear) in northern Idaho. In addition, there are 17 species listed as sensitive by agreement with the Idaho Department of Fish and Game which occur in the EIS area (see Appendix 3-2).

There are no known populations of peregrine falcon, Rocky Mountain wolf, or grizzly bear occurring on public land proposed for grazing. The EIS area provides suitable unoccupied peregrine falcon habitat, and a few rare sightings have been documented near the EIS area along the Snake River. Bald eagles occur primarily as winter migrants and to a lesser extent use the area during the late fall and early spring along the Snake, Salmon and Clearwater rivers. Bald eagle populations are low (15 to 30 eagles) on or near allotments proposed for livestock grazing. As required by Section 7 of the Endangered Species Act, consultation was conducted with the U.S. Fish and Wildlife Service regarding impacts to endangered and threatened species. Consultation with the U.S. Fish and Wildlife Service resulted in a determination that the proposed action or other alternatives would not jeopardize a threatened or endangered species or their habitat.

The only species classified sensitive within the EIS area to be discussed are mountain quail (see the Upland Game section) and the river otter. Preliminary assessment has determined that the other 15 species classified sensitive will not be significantly impacted by the proposed action or alternatives and will not be discussed further.

River otters are rare in most areas of Idaho but are fairly common along the Snake and Salmon Rivers in the southern portion of the EIS area. Preferred habitats of the river otter are the riparian areas of the Snake, Salmon, and Clearwater rivers. Overall habitat condition for river otters is good. Their preferred food is small mammals, bird eggs, frogs, crayfish, and fish.

Big Game

Elk. Elk in the EIS area are found within a variety of habitats, and populations are concentrated accordingly. Approximately 900 elk use public lands within allotments in conjunction with private, state, and Forest Service lands for winter range within the EIS area. Regionally, elk populations are experiencing static or slight upward trends. Within the allotments proposed for livestock grazing there are approximately 98,000 acres of elk habitat on public lands of which 33,000 acres are summer and fall range, 32,000 acres are winter and spring range, and 33,000 acres are yearlong range. There are an estimated 10,000 acres of crucial or important winter range on public land in the EIS area (see Maps 3-3 and 3-4). Approximately 10,800 acres (11 %) of elk habitat are in poor and fair condition.

Elk in northern Idaho are limited primarily by winter range. Winter range is generally on southerly facing slopes below 4,500 feet in elevation where snow depths do not exceed 2 feet. Winter ranges on public land consist of the following three vegetation types: grasslands; grasslands and seral brushlands; and seral brushlands. Winter range is generally in fair to good condition. The primary limiting factors are localized areas with preferred shrubs in a decadent condition and which have grown out of reach of elk; and areas of rank and unpalatable bunchgrass.

Summer range in the EIS area provides important habitat for the following nourishment of pregnant females, calving grounds, rut areas, wallows, and security areas. Summer range is primarily associated with timbered areas. The majority of the elk summer range is in good condition. The primary limiting factors in localized areas are poor cover/forage ratios, excessive roading, and excessive livestock grazing. Conflicts with livestock grazing are low to moderate, primarily as a result of social conflicts and localized conflicts for forage.

Both cattle and elk utilize grass over most of their range. Thus, dietary overlap is the most important factor affecting competition. The major competition areas are on grass winter and spring ranges. The allotments where a high potential for conflict could occur is on the following allotments that have important grass winter ranges: 6195, 6279, 6281, and 6289. Currently, competition is not significant on these allotments. Refer to Appendix 3-3 for a summary of big game ungulate and livestock diet studies conducted by the BLM.

Mule Deer. Mule deer are most commonly associated with the grasslands of the Snake, Salmon, and Clearwater river canyons. They are the most common big game species in the EIS area. Approximately 2,500 mule deer use public lands within allotments in conjuction with private lands for winter range within the EIS area. Within allotments proposed for livestock grazing there are approximately 118,000 acres of mule deer habitat on public lands of which 38,000 acres are summer and fall range and 80,000 acres are winter and yearlong range. There are an estimated 9,000 acres of crucial or important winter range and yearlong range on public land in the EIS area (see Maps 3-3 and 3-4). The crucial and important winter range areas are generally in fair and good condition. Approximately 4,000 acres (3%) of mule deer habitat are in poor condition, and 14,000 acres (12%) is in fair condition.

During the early 1970s poor fawn survival along with harvest programs that were in effect resulted in mule deer populations that were reduced to a low level. The low population levels were far below the level that could utilize available habitat. Current populations are not fully utilizing available habitat at this time, but regionally, populations are experiencing a slight upward trend.

Mule deer primarily use the canyon grasslands below 4,000 feet with south and west aspects for winter and spring range. The highest potential for livestock conflict occurs on winter and spring range and is prevalent on poor condition areas. Winter range is generally in fair to good condition and livestock and deer competition is low. The primary limiting factors on these ranges are rank and unpalatable bunchgrasses. During early spring periods mule deer and livestock have a high preference for the same areas. Grasses and forbs are just starting to grow on these low elevational areas, and the green succulent forage is preferred, but the amount of forage is limited. Also, growing plants have a high water content; consequently, a larger amount of vegetation must be eaten to meet nutritional requirements. Refer to Appendix 3-3 for a summary of big game ungulate and livestock diet studies conducted by the BLM.

White-tailed Deer. White-tailed deer are currently common in the low elevation forests of northern Idaho. The southern portion of the EIS area is also the southern edge of the white-tailed deer range in northern Idaho. The major populations of white-tailed deer are found in the northern portion of the EIS area; lesser populations are found in the grasslands of the southern portion of the EIS area. Within allotments proposed for livestock grazing there are approximately 93,000 acres of white-tailed deer habitat on public lands of which 30,000 acres are summer and fall range; 63,000 acres are winter and yearlong range. There are an estimated 5,000 acres of crucial or important winter range on public lands (see Maps 3-3 and 3-4). No significant conflicts in these areas have been identified. Approximately 9,000 acres (10%) of white-tailed deer habitat are in poor and fair condition.

White-tailed deer are primarily associated with the low elevation timbered areas, shrub fields, and adjacent to agriculture lands. Localized conflicts between white-tailed deer and livestock occur on poor condition riparian areas and on poor condition winter and spring range, but these conflicts are not significant. Refer to Appendix 3-3 for a summary of big game ungulate and livestock diet studies conducted by the BLM.

Moose. Moose habitat on the public lands within the EIS area is found primarily around the Elk City area. Moose are found here yearlong. An estimated 20 to 30 moose use public land in conjunction with private, state, and Forest Service lands. Primary use is during spring, summer, and fall (see Map 3-3). Moose tend to winter at relatively high elevations (5,000 feet) above deer and elk winter ranges. There are no crucial moose winter ranges on public lands. There are currently 8,227 acres of moose habitat leased for summer and fall cattle grazing. Approximately 500 acres (6%) of moose habitat are in poor and fair condition.

Important use areas are associated with stringer meadows, riparian areas, dredge ponds, and associated timber tracts. Important winter use areas are associated with Pacific yew (Taxus brevifolia) thickets. Localized problems occur in poor condition riparian areas along American River and Little Elk Creek.

Bighorn Sheep. The Salmon and Snake river canyons contain a large amount of unoccupied historic bighorn sheep habitat that is in suitable condition for re-establishment. Smith (1954) found from interviews with "old-timers" that bighorn sheep were abundant in central Idaho, but white man's intrusion onto arable lands and grazing lands caused a movement out of their former range. Within the EIS area the only allotment with an existing population of bighorn sheep (6 animals) is the Craig Mountain Wildlife Management Area (Allotment 6289). The rugged Snake and Salmon river canyons and associated grasslands would provide good habitat for this re-established bighorn sheep population.

Upland Game

Upland game species found in the EIS area include Merriam's wild turkey, blue grouse, spruce grouse, ruffed grouse, California quail, mountain quail, chukar partridge, Hungarian partridge, pheasant, and mourning doves.

Wild turkey prefer the ponderosa pine and open timbered areas. Populations are low, and habitat condition is fair. Blue grouse, spruce grouse, and ruffed grouse prefer brushlands, timbered area edges, and adjacent grasslands. General grouse habitat condition is fair to good. California quail and mountain quail are found at the lower elevation areas and prefer riparian habitats. Populations are low, and habitat condition is fair to good. The chukar partridge is the most abundant upland game species and has a preferred habitat of canyon grasslands. Populations are high, and habitat condition is good to excellent. Hungarian partridge and pheasants primarily prefer lands associated with agricultural areas. Populations are low on public land, and habitat condition is fair. Hungarian partridge and pheasants will not be discussed further because of the lack of preferred habitat on public lands in the EIS area. The mourning dove is found throughout the EIS area and has a preferred habitat in or adjacent to agricultural areas, riparian habitats, open woods, and grasslands. Populations are moderate, and habitat condition is good. The mourning dove is primarily a spring and fall migrant and a summer resident.

Primary conflicts for upland game species are associated with land uses that degrade riparian areas and poor condition nesting and brood rearing areas. No significant livestock-upland game conflict areas have been identified. However, localized areas have been overgrazed by livestock and habitat has been degraded (see Appendix 2-5 and Appendix 3-1, Table A).

Nongame Birds and Mammals

Nongame wildlife are species for which no hunting season or harvest is allowed. Nongame species are the most abundant species in the EIS area and occupy a diverse range of habitats from heavily developed areas to pristine areas. Riparian habitats support the highest density of nongame species. No significant conflicts have been identified with livestock grazing. Refer to Appendix 3-1, Table A for a summary of range condition by allotment. Poor condition areas may have a lack of cover and food.

Riparian Associated Species (Furbearers. Waterfowl. Shorebirds. and Other Animal Species)

Riparian zones are very important and critical habitat for wildlife species. Riparain areas often provide the critical habitat components of food, cover, and water for all species (Bull 1978). Highest diversity populations of wildlife species are often associated with riparian habitats.

The species classified Furbearer that are found in the EIS area include beaver, muskrat, mink, marten, red fox and lynx. However, the term "furbearer" often includes any animal whose pelt has a commercial value and would include such species as the weasel, skunk, raccoon, badger, and coyote. Of all the vegetative types, the riparian zone is the most important furbearer habitat.

There are 22 species of ducks, 3 species of goose, 1 species swan, and 36 species of shorebirds and gulls found in the EIS area on a yearlong or seasonal basis. There is a lack of highly preferred duck, geese and swan habitat on public lands. The Snake, Salmon and Clearwater rivers and the lakes provide the majority of the waterfowl and shorebird habitat in the EIS area.

Livestock concentrate in riparian areas because of water, shade, forage, and moderate slopes. Such concentrations have resulted in localized degradation of riparian habitat. Other conflicting activities occurring in riparian areas include road construction; logging; agriculture; mining; stream channel alterations; flood control levees, development and drainage; and herbicide application. Refer to Appendix 2-5 for a summary of streams having conflicting activities and corresponding limiting factors. Primary grazing conflicts are associated with the smaller streams, rather than larger rivers.

Aquatic Wildlife

Introduction

There are 56 streams crossing public lands within allotments proposed for grazing which contain fish habitat in the EIS area (see Maps 3-5 and 3-6 and Appendix 2-5). It is estimated that approximately .01 percent of the total stream and river miles of fish habitat in the EIS area are on or adjacent to public lands proposed for livestock grazing. Streams on public lands comprise on the average from 5 percent to 20 percent of the total stream length. This document will primarily discuss stream segments on public lands. Many small streams contain no fish but have a direct impact on fish habitat quality because they flow into streams containing fish.

Fisheries Habitat Condition

Approximately 81.6 miles of streams crossing public lands proposed for grazing contain fish habitat. Also, many allotments are adjacent to major rivers (Snake, Salmon, Little Salmon, Clearwater, and South Fork of Clearwater) that provide a valuable fishery for anadromous and resident coldwater and warmwater fish. Many streams within the EIS area have a very high gradient; lack adequate pools and spawning areas for fish; and have low flows. Consequently, these streams are classified as providing no fishery.

High spring runoff has resulted in severe stream channel scouring and fish habitat degradation on some streams. However, many streams have an excellent or good streambank stability rating. Many streams have a large amount of rock in the banks with a dense vegetative cover, resulting in stable stream banks. Livestock use may be restricted along some streams because of dense vegetation and limited understory forage.

Streams were evaluated from the streambank stability inventory, fish habitat inventory, and water quality data, and were given an overall habitat condition rating. (See Appendix 2-5 for a summary of overall habitat condition for each stream.) Refer to Table 3-8 for a summary of BLM stream miles of 1) potential anadromous production, 2) overall streambank stability, and 3) overall fish habitat suitability.

Major adverse activities to fisheries habitat condition within the EIS area include heavy livestock grazing, logging, agricultural activities, road construction, mining, and stream channel alteration. See Appendix 2-5 for a summary of conflicting activities and limiting factors for stream segments on public lands. It must be noted that while many of these activities originate or occur on lands not administered by the BLM they do adversely affect fish habitat on public lands. The degree of impacts from conflicting activities is difficult to determine and in most cases could not be quantified.

Fish Populations

A wide variety of fish species are found within the EIS area including coldwater (anadromous and resident), warmwater and coolwater game fish and nongame fish. A complete list of species and preferred habitat is on file at the Coeur d'Alene District Office. The Snake, Salmon, and Clearwater rivers and some of their tributaries support anadromous and resident fisheries. The Pend Oreille and Coeur d'Alene rivers and their tributaries contain only resident fisheries. A number of low elevation and high elevation lakes support fisheries habitat in the EIS area. Livestock grazing is proposed adjacent to the shore of Marshall Lake (18 acres). Marshall Lake contains brook trout and cutthroat trout and has good habitat condition.

TABLE 3-8
STREAM CONDITION SUMMARY
(STREAMS WITH FISH HABITAT)

Fish Habitat Value

Potential for Anadromous Production	BLM Stream Miles	Percent
Excellent	.6	1
Good	18.1	22
Fair	26.0	32
Poor to Marginal	28.8	35
None	8.1	10
Total	81.6	100

Overall Streambank Stability	BLM Stream Miles	Percent
Excellent	9.6	12
Good	40.6	50
Fair	26.7	32
Poor	4.7	6
Total	81.6	100

Overall Fish Habitat Suitability	BLM Stream Miles	Percent
Excellent	.7	1
Good	28.0	34
Fair	37.4	46
Poor	15.5	19
Total	81.6	100

SOURCE: BLM, Coeur d'Alene District, 1979.

Coldwater Game Fish.

(Anadromous Game Fish). Refer to Appendix 2-5 for a summary of streams providing potential or existing anadromous fish habitat (spawning and/or rearing). Table 3-8 gives a summary of potential anadromous production on streams crossing public land proposed for livestock grazing. Anadromous fish species considered include chinook salmon, sockeye salmon, and steelhead trout, all of which are classified sensitive by BLM and the Idaho Department of Fish and Game. Currently, chinook salmon are under study for possible threatened or endangered classification. In terms of BLM administered habitat, anadromous fish are the most economically important species in the district and are a much sought after game fish. See Map 3-5 and refer to Appendix 2-6 for a determination of location and potential anadromous production values in the EIS area. Anadromous fish also provide some Indian subsistance and ceremonial fisheries and contribute to off-site commercial fisheries. Anadromous fish numbers are at an all time low due to loss of habitat, dams, drouth, and possible overfishing.

Chinook spawning is not known to occur on BLM habitat within the district. However, chinook presmolt and smolt (a young migrating salmon) rearing areas occur on the following BLM administered streams: Whiskey, Kirks Fork, Cottonwood, Hazard, Deer, and Deep creeks; American River: and West Fork American River. Sockeye salmon do not spawn on BLM administered habitat but do pass through BLM habitat (Snake and Salmon rivers) enroute to off-site spawning areas. Suitable steelhead spawning and rearing habitat occurs on BLM administered streams with suitable habitat that drain into the Clearwater, Salmon, and Snake rivers that have adequate flows and no migration barriers.

Smolts from all three anadromous species pass through BLM habitat on the Snake and lower Salmon rivers enroute to the ocean. Upstream spawners and smolts of chinook and steelhead pass through BLM habitat on the Clearwater River, but due to the scattered ownership pattern of BLM land on the mainstem Clearwater, this habitat has less impact on them than BLM habitat on the Salmon River.

(Resident Game Fish). Coldwater resident game fish found in the EIS area on streams crossing public lands include rainbow trout, cutthroat trout (the native or west slope subspecies is classified as sensitive), brook trout, dolly varden, and whitefish. Brook trout is an introduced species.

Waters of the Idaho batholith are not productive fisheries due to their low level of nutrients. Consequently, fish harvest is closely regulated to maintain desired fish populations. Loss of habitat due to man's activities is an EIS area-wide problem.

Warmwater and Coolwater Game Fish. Largemouth bass, smallmouth bass, channel catfish, brown bullhead, and black crappie are present in the warmer lakes. Bass are present in the Salmon and Snake rivers. White sturgeon (a coolwater species) are present in limited numbers in the Snake, Salmon, and Kootenai rivers and are classified sensitive.

Nongame Fish. Nearly all streams in the district support some nongame fish. Their habitat requirements are similar to other warmwater and coldwater fish. Since none of this category of fish are threatened, endangered, sensitive, or of significant economic or social value, they will not be discussed further.

Other Aquatic Forms

Streams in the district support a variety of aquatic invertebrate species which are important for fish food. No threatened or endangered aquatic invertebrates are known to occur in the EIS area.

Water Quality and Water Quantity

The primary water quality and water quantity problems include siltation, low flows, and high water temperatures. Water temperature and siltation are affected by changes in streambank cover. By mid-summer many streams dry up, become intermittent, or have very low flow. Refer to Appendix 2-5 for a summary of specific stream water quality and quantity problems.

Cultural Resource

Introduction

Cultural resources represent a part of the continuum of events from the earliest evidences of man to the present day. They are often discussed as physical remains of both prehistoric and historic activities and include artifacts, structures, sites, and other evidence of human activity. Prehistoric resources are defined as those resources associated with activities before written history. Historic resources are defined as those resources associated with activities after written histories were kept. Cultural resources can also be discussed in terms of areas where significant human events occurred, even though physical evidence no longer remains.

Cultural resource data for the EIS was compiled from a variety of sources. Data was gathered from various inventories and site-specific projects including range improvement projects, timber sales, and land exchanges. The Class II inventory is in the process of being completed but will not be finalized before the EIS is finished. The State Historic Preservation Office (SHPO) has been contacted in accordance with the Rangeland Programmatic Memorandum of Agreement which was ratified between the BLM and the Advisory Council on Historic Preservation, dated January 14, 1980.

Cultural resources listed on or eligible to the National Register of Historic Places were identified by examining the listing of the National Register of Historic Places in the February 6, 1978, and March 18, 1980, Federal Register as well as the monthly supplements after March 18, 1980. Table 3-9 lists those sites or areas that are on or eligible for the National Register of Historic Places that are on or near BLM lands. The BLM will seek formal determinations of eligibility from the Keeper of the National Register for those sites or areas when site-specific projects are identified.

Prehistoric Resources

Evidence of human use in the EIS area ranges from winter villages to upland sites. The winter villages were located along the canyon bottoms of the major drainages and were sometimes characterized by several structures built over depressions dug into the ground. Other prehistoric sites common to the EIS area are rockshelters, pictographs, hunting blinds, and sites relating to religious activities. The archeological record indicates that the area has been inhabited for at least the last 8,000 years. A more detailed discussion of the prehistoric resources and Native American use of the EIS area can be found in the Unit Resource Analysis (URA) located at the BLM District Office in Coeur d'Alene. To date no predictive model has been developed to determine projected densities or types of prehistoric sites.

Historic Resources

Most of the evidence for historic resources relate to the past mining activity. These sites include cabins; rock structures; dredge and hydraulic placer tailings; prospect pits; equipment; and ditch systems that relate to hydraulic mining. A more detailed discussion of the historic resources and events in the EIS area may be found in the URA located at the BLM Coeur d'Alene District Office.

Damage to cultural resources has resulted from a variety of sources in the past. Natural deterioration; cattle trampling; vandalism; building or facilities construction; and road construction have all contributed to the deterioration of sites to varying degrees.

Recreation

Because of the scattered land ownership pattern, the BLM is not a major supplier of recreation in the region; most activities occur on BLM lands in conjunction with use on other land ownerships. There are, however, some important exceptions to this. Rochat, Grandmother Mountain, Silver Belt, Elk City, Marshall Mountain, and the lower Salmon and Snake rivers are often destination areas for recreationists. These large blocks of public lands have both local and regional significance for hunting, fishing, off-road vehicle use, mineral collecting, winter sports, water sports, and dispersed general leisure activities.

Congress has recognized the national significance of the lower Salmon and Snake rivers as indicated by their status under the Wild and Scenic Rivers Act (P.L. 90-542). The Snake River

TABLE 3-9
NATIONAL REGISTER OF HISTORIC PLACES

NAME	CHARACTERISTICS	OWNERSHIP	COMMENTS
Lolo Trail	Prehistoric and historic trail	USFS/Private	Entered on National Register 10-15-66
Weippe Prairie	Prehistoric use and first meeting place between the Nez Perce and Lewis and Clark	State of Idaho/ Private	Entered on National Register 10-15-66
Elk City Historic Mining District	Historic mining from the 1860s including lode, placer and dredging	BLM/USFS/Private	Eligible for the National Register
Silver Belt Mining Area	Historic mining activity	BLM/Private	Eligible for the National Register
Lower Salmon River	Extensive prehistoric and historic mining including Chinese	BLM/Private	Eligible for the National Register
White Bird Battlefield	Historic battle between the Nez Perce and U.S. Army	National Park Service	Entered on National Register 7-18-74
Nez Perce Snake River Archeological District	Extensive prehistoric and Nez Perce Ethnographic Use	Private/State of Idaho	Entered on National Register 12-22-78

SOURCE: Federal Register
BLM, Coeur d'Alene District, 1981.

within the Hells Canyon National Recreation Area is a designated component of the Wild and Scenic Rivers system, and the lower Salmon and lower Snake are designated as study rivers under the Act. In addition, the lower Salmon and Snake river corridors have been identified as undeveloped recreation sites through the Bureau planning process.

Recreation use specifically within the Salmon and Snake river canyons has been increasing over the past several years. Hunting, fishing, and particularly water based activities are showing increased use. Much of the increased use is occurring during the early spring and late fall. The increased number of users and extended recreation use periods are resulting in increased conflicts between recreationists and livestock. The perceived quality of the recreation experience is what is generally affected by conflicts of this nature.

Livestock Grazing

Within the EIS study area are 162 operators holding leases to use 121,031 acres of public lands for grazing. These operators graze 165 allotments, with a permitted use of 7,198 AUMs. See the allotment map in the packet on the back cover for locations of allotments. There are seven allotments that are not leased at present that produce 349 AUMs of livestock forage. Of the 165 leased allotments, only one has an allotment management plan (AMP). The Kirks Fork AMP (6261) is in the Elk City area and is administered under a cooperative agreement with the Nez Perce National Forest. The AMP is managed under a three-pasture rest-rotation system, with one pasture consisting of BLM lands and two pastures consisting of Forest Service lands. Two allotments within the EIS area have grazing systems, 6158, a deferred system and 6184, a rest rotation system. The remaining allotments use public lands on a seasonal use basis. Of the leased allotments, 144 are grazed by cattle; 9 are grazed by cattle and horses; 3 are grazed by sheep; 3 are grazed by cattle and sheep; and 6 are grazed by horses.

Public lands within the EIS area are fragmented and intermingled with private lands. These public lands have historically been grazed in common with the adjacent private and state lands. The public lands have been used in most cases the same as the private lands as determined by the lessee's operation needs. Supervision and grazing management of such lands is difficult and costly, and past management has been primarily custodial.

There are two major types of livestock operations in the EIS area. These consist of cow-calf and ewe-lamb operations. Cattle use the Salmon and Snake river canyon grasslands for fall, winter, and spring grazing. Cattle use the Clearwater River and associated drainages for spring, summer, and fall range. Operators who have leases in the Salmon and Snake country usually feed supplements and calve from January 1 to the latter part of March, then turnout on spring range. Operators in the Clearwater River area usually feed supplements and calve from November 1 to the latter part of April. Cattle are usually on summer-fall range by June 1. In the Salmon and Snake River country, livestock generally are moved from summer range to the fall range in the canyons in October or November. Sheep use the canyon grasslands primarily for late fall, winter, and spring grazing. Bucking usually takes place from October 1 to December 15, and lambing takes place from March 1 to May 1. Shed lambing usually takes place at the home headquarters. Replacement ewe lambs and older ewes are occasionally wintered in southern Idaho on beet fields. Bands are turned out on summer range in June. The majority of summer range is on Forest Service lands.

Economics

Introduction

Five counties have been established as the base area or region to be studied in the economics portions of this EIS. These counties are Clearwater, Latah, Lewis, Idaho, and Nez Perce. They were chosen because 1) 86 percent of the operators reside and presumably trade in these five counties and 2) the lack of a single trade area where a majority of the ranchers trade outside these five counties. Counties in which operators reside that were not included in the economic region are Adams, Benewah, Bonner, Kootenai, Shoshone, Ada, Valley, and Washington. These counties were not included because their involvement is limited (6 or fewer operators) and their inclusion would distort the base data and make it difficult to identify the real impacts to the selected counties.

The industry which would be impacted the most by the proposal is the livestock industry. According to the 1980 Idaho Agricultural Statistics (USDA 1980), there were approximately 108,000 cattle and 11,000 sheep in the five-county area with annual feed requirements of 1.3 million animal unit months (AUMs). Lease holders in the EIS area run cattle and sheep with total feed requirements of 420,000 AUMs annually. This represents 35 percent of the total five-county needs. The EIS area has a total active preference of 7,198 AUMs which is 2 percent of the operators needs and 0.6 percent of the total five-county needs.

Income

Total regional income was roughly $507 million in 1978. This is a 2 percent growth in real money terms (after adjusting for inflation) since 1974. Nonfarm industries accounted for 91 percent of the 1978 income. Nonfarm income grew by 21 percent since 1974. On a statewide basis, total income was up 14 percent and nonfarm income was up 29 percent since 1974. The dominant nonfarm industries in the region are manufacturing (29%), government (19%), services (11%), and retail trade (11%) (Bureau of Economic Analysis 1980).

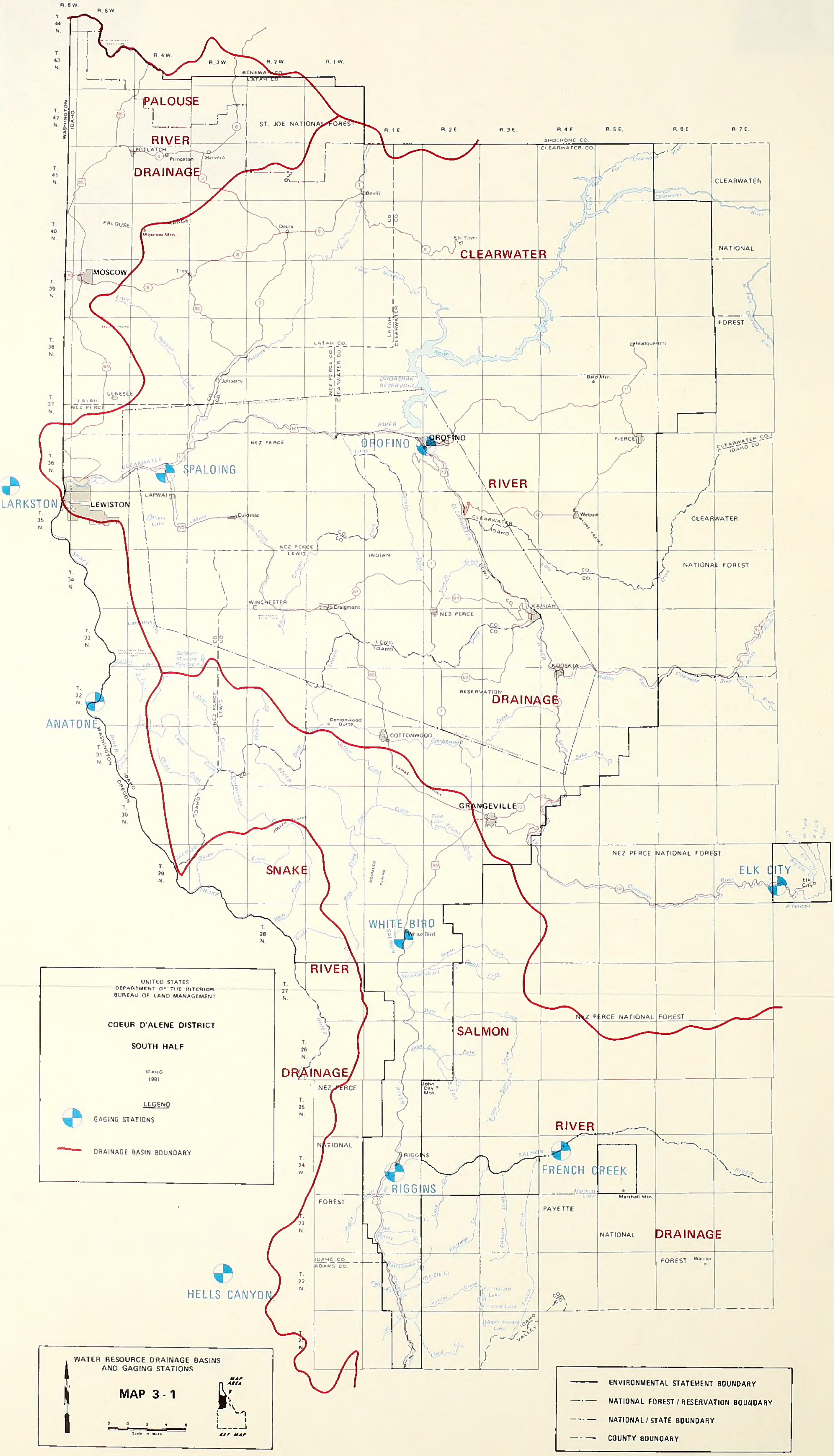
Total farm income in the region was $48 million in 1978. This is a 60 percent decline in income (in real money terms) since 1974. Statewide, farm income dropped 46 percent during this time period. Farm income accounted for roughly 9 percent of the total regional income making it the fifth most important industry in the region.

Total livestock income in the region was roughly $8.6 million in 1978. This is based on the assumption that the relationship between farm income and livestock income is approximately the same as the relationship between farm receipts and livestock receipts. During the 6 years between 1972 and 1977 livestock receipts averaged 18 percent of total farm receipts (USDC 1979).

Since ranch budgets were not developed for this EIS, it is not possible to estimate the total income of EIS area lease holders.

Employment

Total regional employment was 42,886 in 1978. Government and Government enterprises was the number one employer accounting for 24 percent of total employment. Farm employment ranked fifth in total employment with farm proprieties and farm wage and salary workers accounting for 8 percent of total employment (USDC 1980). Since 1974 total employment in the region has risen 12 percent. Farm employment has declined by one percent. This compares with statewide increases of 20 and 5 percent, respectively. That portion of farm employment attributable to the livestock industry is not identifiable.



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

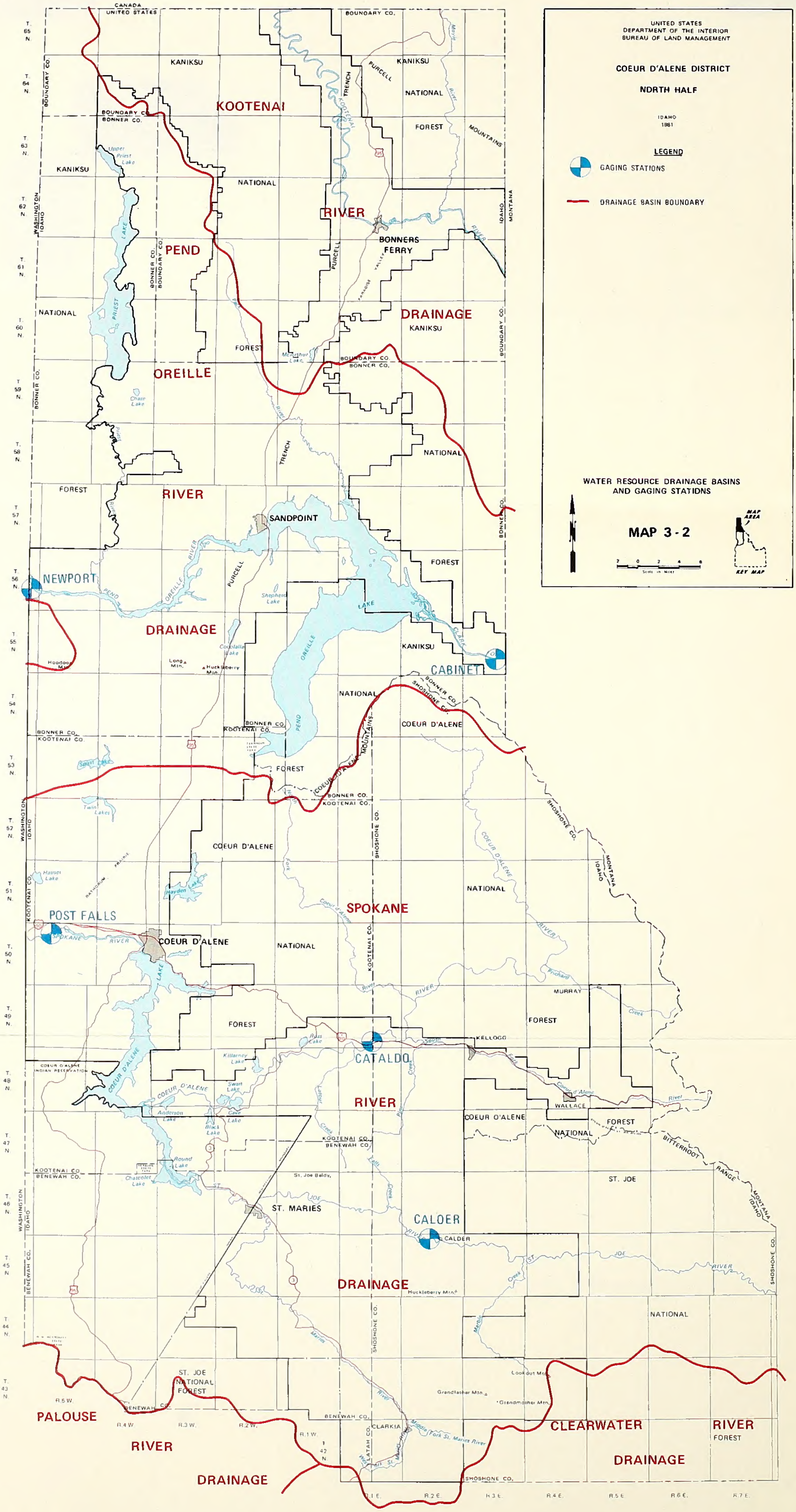
COEUR D'ALENE DISTRICT

SOUTH HALF

IDAHO
1981

WATER RESOURCE DRAINAGE BASINS
AND GAGING STATIONS

MAP 3 - 1


UNITED STATES
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COEUR D'ALENE DISTRICT

NORTH HALF

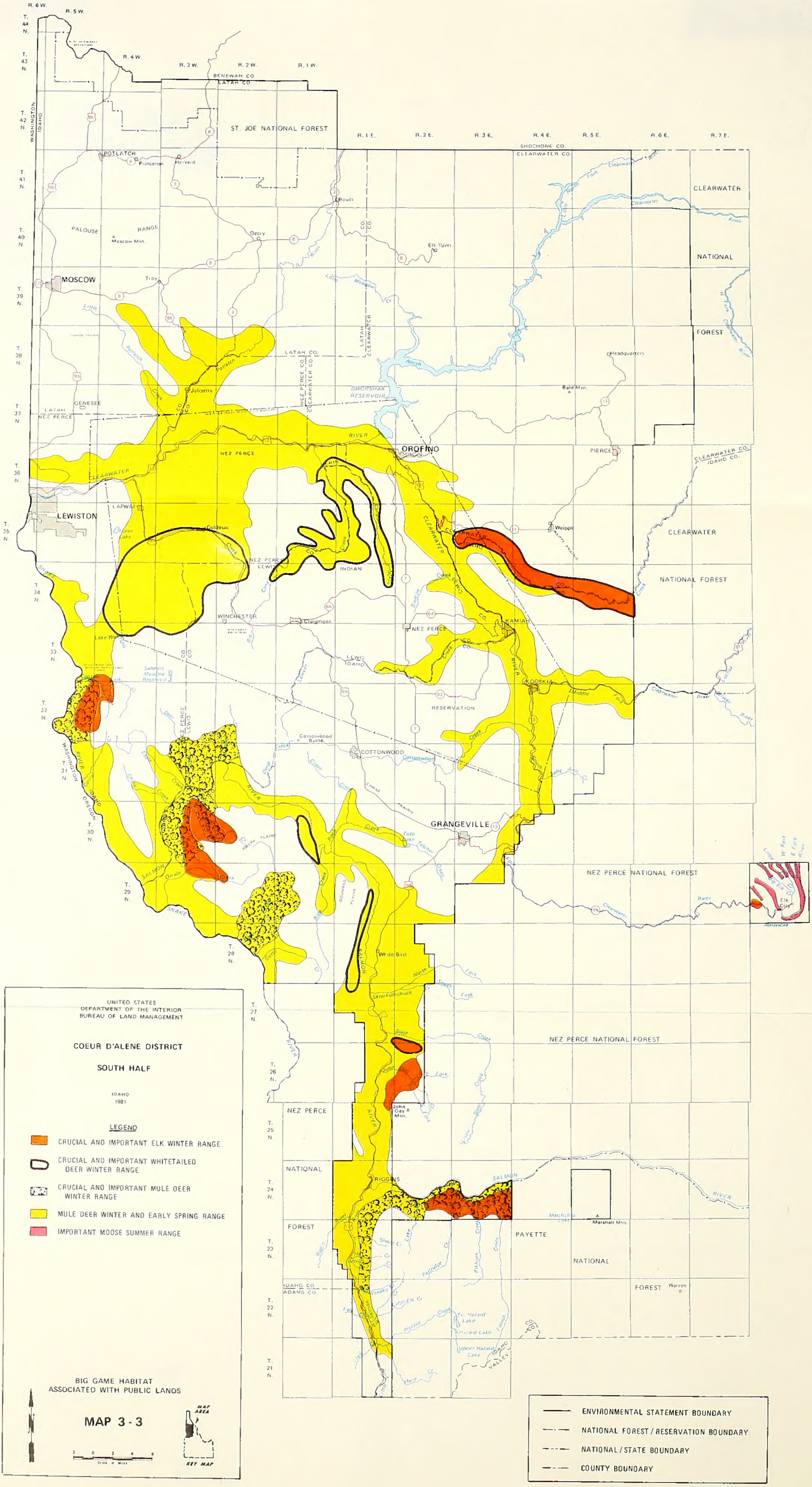
IDAHO
1981

LEGEND

◐	GAGING STATIONS
—	DRAINAGE BASIN BOUNDARY

WATER RESOURCE DRAINAGE BASINS
AND GAGING STATIONS

MAP 3 - 2



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COEUR D'ALENE DISTRICT

SOUTH HALF

IDAHO
1981

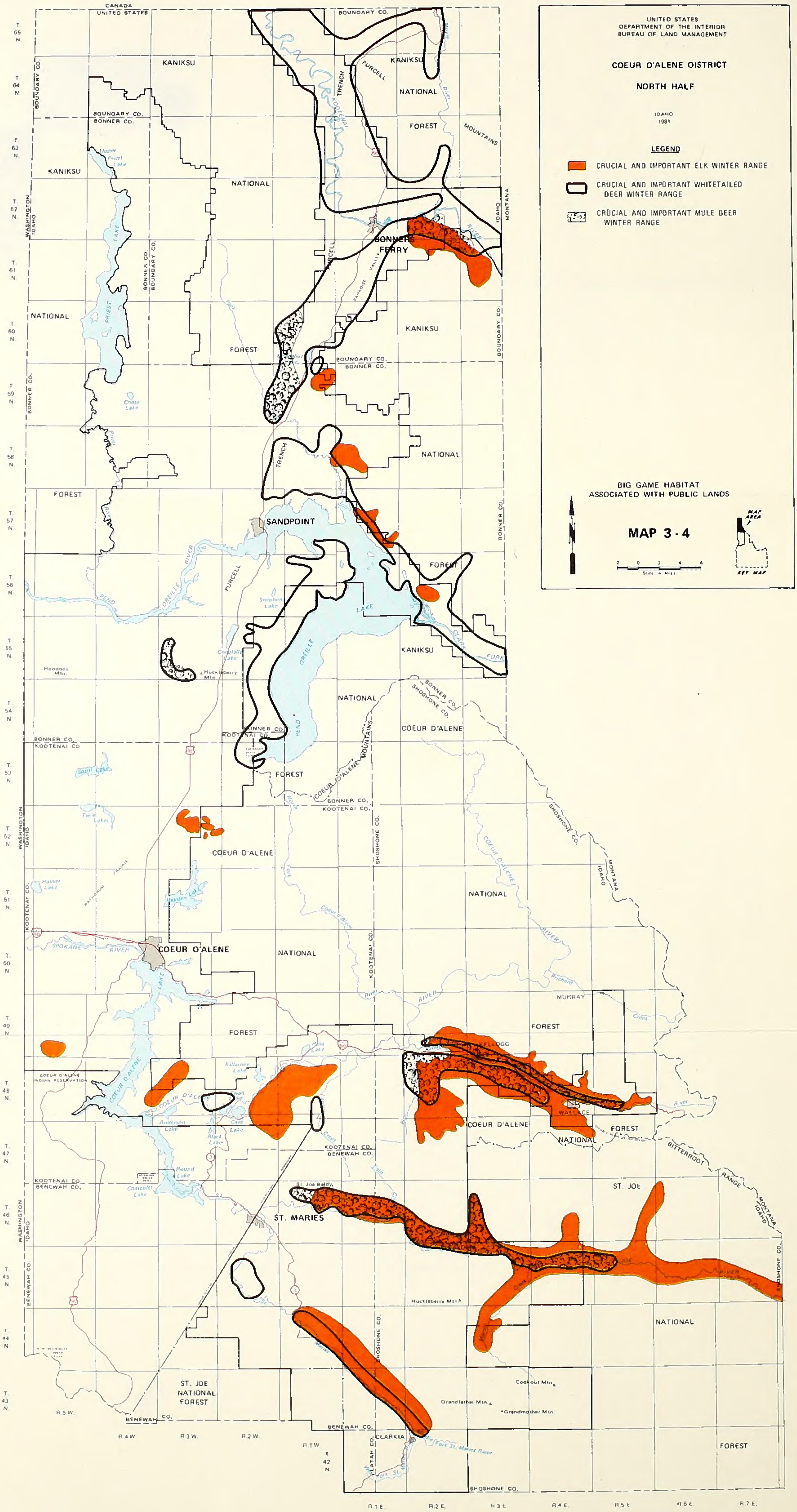
LEGEND

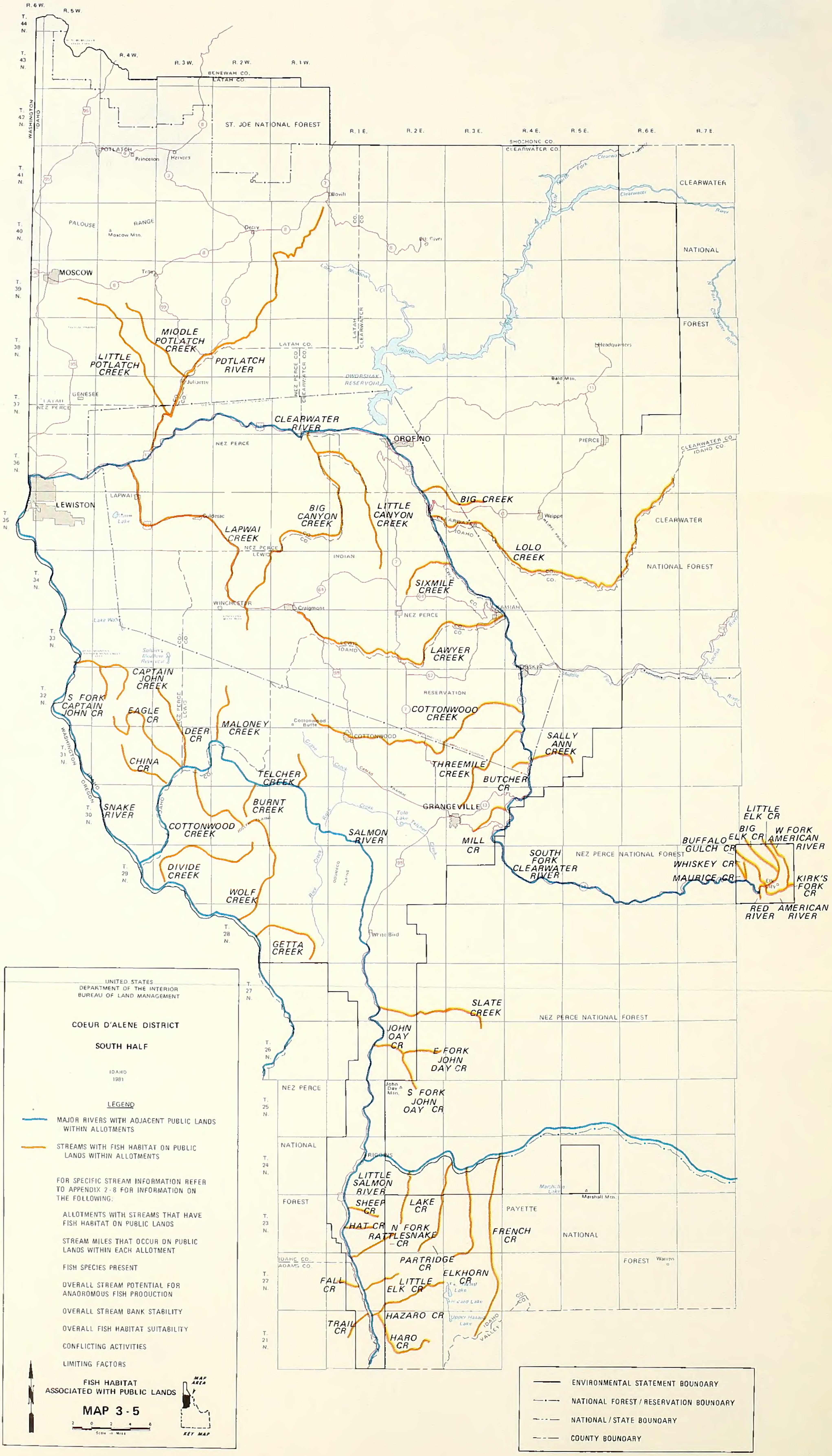
- 🟧 CRUCIAL AND IMPORTANT ELK WINTER RANGE
- ⬭ CRUCIAL AND IMPORTANT WHITETAILED DEER WINTER RANGE
- ▨ CRUCIAL AND IMPORTANT MULE DEER WINTER RANGE
- 🟨 MULE DEER WINTER AND EARLY SPRING RANGE
- 🟥 IMPORTANT MOOSE SUMMER RANGE

BIG GAME HABITAT
ASSOCIATED WITH PUBLIC LANDS

MAP 3-3

- ——— ENVIRONMENTAL STATEMENT BOUNDARY
- —·— NATIONAL FOREST / RESERVATION BOUNDARY
- —··— NATIONAL / STATE BOUNDARY
- —·— COUNTY BOUNDARY


UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COEUR D'ALENE DISTRICT
NORTH HALF
IDAHO
1981
LEGEND
CRUCIAL AND IMPORTANT ELK WINTER RANGE
CRUCIAL AND IMPORTANT WHITETAILED DEER WINTER RANGE
CRUCIAL AND IMPORTANT MULE DEER WINTER RANGE
BIG GAME HABITAT ASSOCIATED WITH PUBLIC LANDS
MAP 3-4
Scale in Miles
MAP AREA
KEY MAP
CANADA
UNITED STATES
BOUNDARY CO.
BONNER CO.
KOOTENAI CO.
SHOSHONE CO.
BENEWAH CO.
LATAH CO.
WASHINGTON
IDAHO
MONTANA
KANIKSU
NATIONAL
FOREST
COEUR D'ALENE
ST. JOE
BONNERS FERRY
SANDPOINT
COEUR D'ALENE
ST. MARIES
KELLOGG
WALLACE
MURRAY
CLARKIA
PURCELL MOUNTAINS
PURCELL TRENCH
COEUR D'ALENE MOUNTAINS
BITTERROOT RANGE
PEND OREILLE LAKE
PEND OREILLE RIVER
PRIEST LAKE
Upper Priest Lake
KOOTENAI RIVER
SPOKANE RIVER
COEUR D'ALENE LAKE
COEUR D'ALENE RIVER
ST. JOE RIVER
Hayden Lake
Hauser Lake
Twin Lakes
Spirit Lake
Chase Lake
Cocolalla Lake
Shepherd Lake
Round Lake
Chatcolet Lake
Black Lake
Cave Lake
Anderson Lake
Killarney Lake
Rose Lake
Hoodoo Mtn.
Huckleberry Mtn.
St. Joe Baldy
Lookout Mtn.
Grandfather Mtn.
Grandmother Mtn.
COEUR D'ALENE INDIAN RESERVATION
East Fork St. Maries River
T. 65 N.
T. 64 N.
T. 63 N.
T. 62 N.
T. 61 N.
T. 60 N.
T. 59 N.
T. 58 N.
T. 57 N.
T. 56 N.
T. 55 N.
T. 54 N.
T. 53 N.
T. 52 N.
T. 51 N.
T. 50 N.
T. 49 N.
T. 48 N.
T. 47 N.
T. 46 N.
T. 45 N.
T. 44 N.
T. 43 N.
T. 42 N.
R.5 W.
R.4 W.
R.3 W.
R.2 W.
R.1 W.
R.1 E.
R.2 E.
R.3 E.
R.4 E.
R.5 E.
R.6 E.
R.7 E.



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COEUR D'ALENE DISTRICT

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LEGEND

—	MAJOR RIVERS WITH ADJACENT PUBLIC LANDS WITHIN ALLOTMENTS
—	STREAMS WITH FISH HABITAT ON PUBLIC LANDS WITHIN ALLOTMENTS

FOR SPECIFIC STREAM INFORMATION REFER TO APPENDIX 2-8 FOR INFORMATION ON THE FOLLOWING:

ALLOTMENTS WITH STREAMS THAT HAVE FISH HABITAT ON PUBLIC LANDS

STREAM MILES THAT OCCUR ON PUBLIC LANDS WITHIN EACH ALLOTMENT

FISH SPECIES PRESENT

OVERALL STREAM POTENTIAL FOR ANADROMOUS FISH PRODUCTION

OVERALL STREAM BANK STABILITY

OVERALL FISH HABITAT SUITABILITY

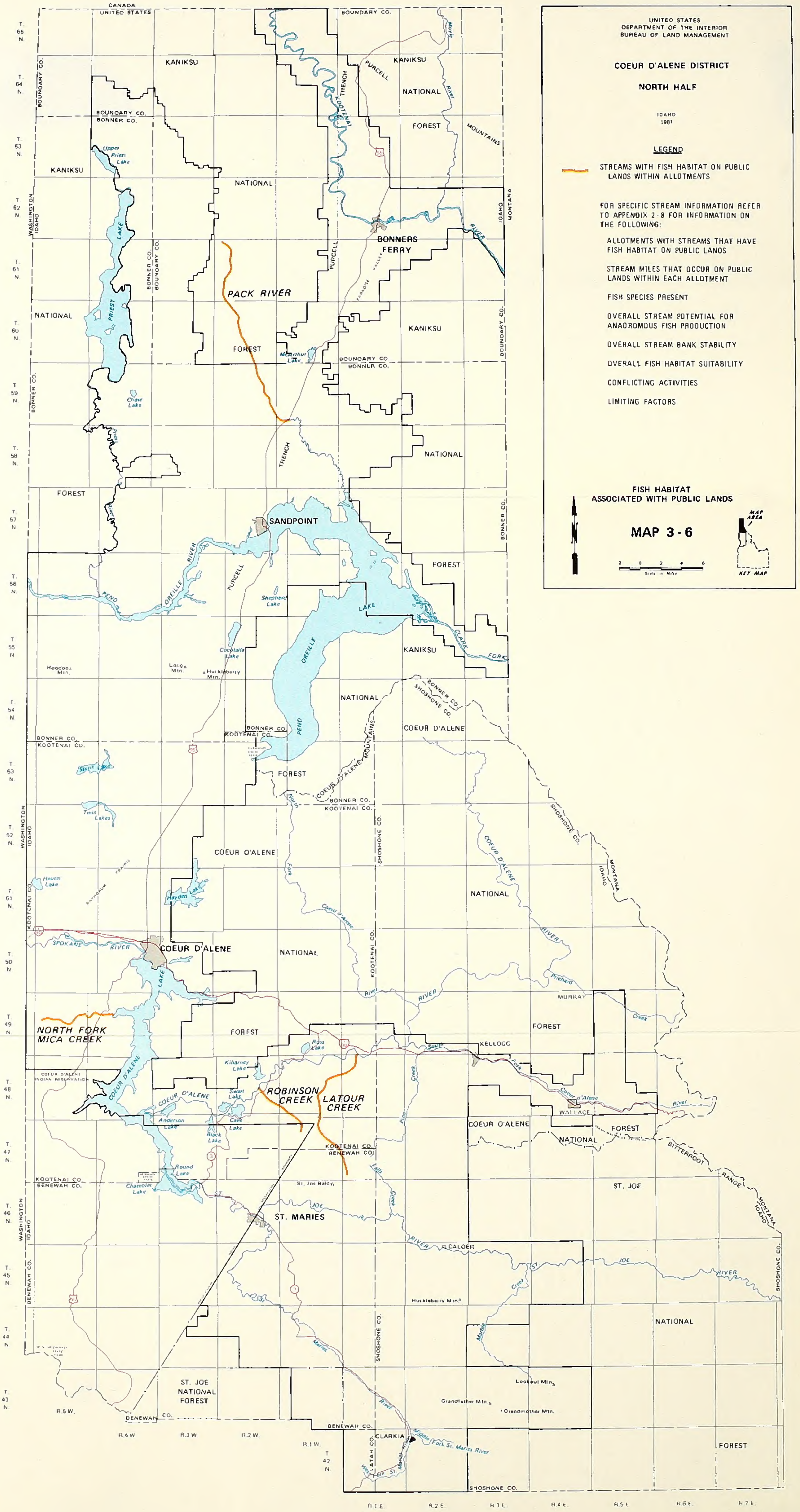
CONFLICTING ACTIVITIES

LIMITING FACTORS

FISH HABITAT ASSOCIATED WITH PUBLIC LANDS

MAP 3-5

——	ENVIRONMENTAL STATEMENT BOUNDARY
—·—	NATIONAL FOREST / RESERVATION BOUNDARY
—··—	NATIONAL / STATE BOUNDARY
— —	COUNTY BOUNDARY



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

COEUR D'ALENE DISTRICT

NORTH HALF

IDAHO
1981

LEGEND

— STREAMS WITH FISH HABITAT ON PUBLIC LANDS WITHIN ALLOTMENTS

FOR SPECIFIC STREAM INFORMATION REFER TO APPENDIX 2-8 FOR INFORMATION ON THE FOLLOWING:

- ALLOTMENTS WITH STREAMS THAT HAVE FISH HABITAT ON PUBLIC LANDS
- STREAM MILES THAT OCCUR ON PUBLIC LANDS WITHIN EACH ALLOTMENT
- FISH SPECIES PRESENT
- OVERALL STREAM POTENTIAL FOR ANADROMOUS FISH PRODUCTION
- OVERALL STREAM BANK STABILITY
- OVERALL FISH HABITAT SUITABILITY
- CONFLICTING ACTIVITIES
- LIMITING FACTORS

FISH HABITAT
ASSOCIATED WITH PUBLIC LANDS

MAP 3-6

CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

CHAPTER 4
ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This chapter analyzes the environmental consequences of all alternatives as compared to the existing situation. Impact assessment involves determining what resources will be affected as was done in Chapter 3, how the resource will be affected, and the level or threshold at which a particular environmental impact becomes significant. Thresholds are extremely difficult to express either quantitatively or qualitatively. In summarizing the relative significance of impacts, the analysts used a system of threshold variance where possible or sound professional judgment where data was unavailable. A statistically accurate system of thresholds is difficult to establish for a regional assessment in which less than 2 percent of the land area is managed by the preparing agency. However, during the site specific environmental assessment process, impact thresholds will be developed for small, localized geographic areas. Any impacts which exceed these thresholds will be deemed significant and will be analyzed for mitigation or project modification.

Resource values not expected to be affected and, therefore, not addressed in detail in Chapter 4 are covered briefly in the following discussion.

Topography, Geology, and Mining

The Environmental Impact Statement (EIS) area contains a topographic profile ranging from river canyon areas with elevations less than 1,000 feet to mountain peaks with elevations exceeding 8,400 and includes some of the most varied geology in Idaho. Within the EIS area is the famous Coeur d'Alene Mining District. This region, between Kellogg and Mullan, has produced well over $2 billion worth of lead, zinc, silver, and other valuable metals. Topography, geology, and mining activities will not be affected by any of the alternatives.

Social Values

The majority of the land in the EIS area (77.3 percent) is in forest use; 11.3 percent is in rangeland use; 9.5 percent is in agricultural use; and the remaining 1.9 percent is in urban use. Despite the large federal ownership of land in the area (61 percent), the BLM manages only 1.9 percent of the total land area. These BLM administered lands are widely scattered throughout the area. Because of this intermingling with private, state, and Forest Service lands and due to the absence of large blocks of land under BLM mangement, it is unlikely that any particular social system or lifestyle is primarily dependent on BLM land for survival. Even though multiple use decisions may have discomforting effects on a few individuals, the effects on the social systems of the area would be minimal no matter which management option is chosen. There will, therefore, be no further discussion of social values.

Agricultural Lands and Proposed ACECs

Prime and unique agricultural lands and proposed Areas of Critical Environmental Consern (ACEC) will not be affected by the alternatives and, therefore, will be not discussed further.

Air Quality

In general, the air quality within the district meets ambient air quality standards. Impacts to air quality from any of the alternatives would be negligible, resulting from road dust from management activities or from limited aerosols from weed control spraying. Therefore, air quality will not be discussed further.

Visual Resources

Characteristic landscape varies widely throughout the district. Institution of grazing treatments have the potential to impact visual quality. Rest-rotation and deferred grazing can cause contrast between grazing and nongrazed areas in the short term. However, as forage abundance and quality improve, contrast will decrease and long term impacts would be insignificant. A significant impact to the visual resource under any of the alternatives is unlikely considering that all proposed improvements would be analyzed on a site specific and project specific basis to ensure that visual quality is not degraded. Therefore, visual quality will not be discussed further.

Wilderness Resources

There are five wilderness study areas (WSAs) in the EIS area, three of which could be effected by the proposed action and other alternatives. They include the Snowhole Rapids WSA (5,068 acres leased for grazing), the Crystal Lake WSA (2,535 acres leased for grazing), and the Marshall Mountain WSA (40 acres leased for grazing). No facilities would be constructed in these areas that would impair the areas' suitability for wilderness designation. Therefore, wilderness resources will not be discussed further.

Timber Management

Of the 121,031 acres of BLM land within grazing allotments, approximately 69,000 acres are timbered. Over the 20 years of the grazing program, approximately 60 acres annually within existing grazing allotments would have harvest and subsequent regeneration activities taking place. Based on the amount of managed timber lands that would be affected over the life of the project, the nature of the possible impacts, the duration of the impacts, and the available controls, timber management activities would not be affected by the proposed action alternative or any of the other alternatives. Therefore, timber management will not be discussed further.

The following definitions were used to determine the magnitude and character of impacts identified as affecting the remaining resources:

1. Short Term:	Those impacts expected to occur during the 5-year period needed to complete the range improvement projects and implement grazing treatments.
2. Long Term:	Twenty years after initiation of the proposed action or alternative (5 years for implementation plus 15 additional years).
3. Beneficial Impacts:	Resource conditions would improve and any existing downward trends would be reversed.
4. Adverse Impacts:	Resource conditions would deteriorate and any existing downward trend would not be reversed.
5. No impacts:	Resource conditions (beneficial and/or adverse) would remain static.

SUMMARY OF FINDINGS

The proposed action alternative, current management alternative, and resouce protection alternative were all found to have no significant effect on the resource values that were assessed when considered in a regional context with the design features described in Chapter 2 and the associated appendixes.

The no livestock grazing alternative was found to have the greatest impact of any of the alternatives under consideration. Discussion of the no livestock grazing alternative is Bureau policy.

ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION ALTERNATIVE

Under the proposed action, livestock grazing would be allowed on 172 allotments at a level of 6684 AUMs. Specific design features are described in detail in Chapter 2. The analysis of this alternative has been conducted using the following assumptions:

1. Personnel and funds would be provided to implement the alternative as described and within the time frame identified in Chapter 2.

2. Soil Conservation Service (SCS) personnel and funding would be provided for implementation of actions that involve cooperative planning. However, if additional time is needed due to budgetary constraints of the SCS, the predicted impacts would not be altered significantly.

3. Vegetation necessary to maintain projected wildlife populations and protect nonconsumptive resource values would be provided.

4. Monitoring studies would be completed as indicated and appropriate adjustments made as needed to ensure protection of resource values.

5. Increased forage made available from implementation of the alternative would be allocated to livestock.

6. Actual livestock use levels are equal to licensed use levels.

Soils Resource

Overall, the proposed action alternative would result in a slight but immeasurable reduction in soil loss in the EIS area. Ground disturbance resulting from range improvements would amount to approximately 46 acres in the short term of which all but 6 acres are expected to revegetate in the long term. No significant short term or long term impacts are expected to the soil resource from proposed range improvements.

Water Resource

The proposed forage allocation would slightly improve watershed condition and slighlty decrease water yield by improving infiltration of soils and vegetation litter cover. This insignificant improvement in watershed condition would be most noticeable on the 8,808 acres where range condition would be improved.

The delaying of turnout dates in those areas where livestock use conflicts with optimum plant development would assist in improving watershed condition. Water quality would also be improved by keeping cattle off the range when the soil is soft and compaction of the soil is more likely to occur.

The stream bank improvements and protection measures would improve overall stream condition by decreasing stream bank erosion and the amount of fecal material entering the stream. The spring and pond developments along with fencing should improve the cattle distribution thereby improving overall watershed condition. These developments would cause some localized soil disturbance and new areas of cattle concentration; however, the overall benefits should be greater than the site specific impacts. The land treatment proposed (noxious weed spraying) should not cause any water quality impact if the prescribed guidelines in BLM manual 9220 and State of Idaho Agricultural Pollution Abatement Plan are followed. The spraying of noxious weeds should result in an overall improvement in watershed condition.

In summary, the proposed action should provide for localized improvements in watershed and stream condition; however, the overall effects on water yield, quality, and use would probably not be measurable.

Vegetation Resource

The proposed action would authorize livestock use at the present carrying capacity of the range. Livestock forage allocation levels would be reduced on 45 allotments. The forage reductions would reduce livestock grazing intensity which would help to assure the biological requirements of key forage species are met. Refer to Appendix 2-3, Table A for proper stocking levels on an allotment specific basis.

Grazing Treatments

Three types of grazing treatments are proposed: yearlong rest, deferred, and annual seasonal grazing. The benefit of each treatment is presented below.

Yearlong Rest

This treatment provides a grazing-free period for key forage plants to restore carbohydrate reserves and improve vigor. The treatment also allows for seeds to ripen, seedlings to become established, and litter to accumulate between plants (Hormay 1970). Allowing for seedling establishment and litter accumulation would lead to improved range condition and reduced soil erosion.

Deferred Grazing

Deferred grazing means delayed grazing. Deferment would provide a period for plants to begin replenishing the store of carbohydrate reserves. Improvements in food reserves would cause increased plant vigor and seed production ultimately leading to improved health of the range. Stoddart et al. (1975) stated, "The longer the beginning of grazing on a range unit can be delayed, the better opportunity exists for new plants to become established and for old plants to gain vigor." Increased establishment of desirable forage species and improved range condition is expected to occur following implementation of the deferred grazing treatment.

Annual Seasonal

The impacts arising from this treatment depend on the season the pasture is grazed and the level of livestock use. The spring growing season is the most critical period for grazing perennial bunchgrasses within the EIS area. In a study of bluebunch wheatgrass (Agropyron spicatum), Stoddart (1946) found that if a period of growth is provided before grazing begins the plants suffer less damage from late spring grazing. Setting back spring turnout dates and with proposed stocking levels, it is expected that range condition would be maintained or improved slightly.

Under the proposed action, allotments on which yearlong rest or deferred grazing treatments are incorporated are expected to improve 10 percent of the poor condition and 30 percent of the fair condition range by one condition class within 20 years. Allotments proposed for annual seasonal grazing are expected to improve 5 percent of the poor condition and 10 percent of the fair condition range by one condition class in 20 years. Areas in good range condition are not expected to improve under any of the proposed grazing management systems.

Change in range trend depends on the type of management proposed on the allotment. The 15 allotments proposed for rest or deferred grazing treatments are proposed to improve all 918 acres currently in downward trend to static trend in 20 years. The acres in static trend would change from 52,536 to 51,241. The acres in upward trend would improve from 380 to 2,593. The 157 allotments proposed for annual seasonal grazing would not reduce any of the 1,395 acres in downward trend. The acres in static trend under this management scheme would change from 65,592 to 64,821. The acres in upward trend would improve from 210 to 981.

Season of Use

The most detrimental grazing use period is during the period of most active growth. Cook (1966) explains the role of food reserves in plant growth, "Carbohydrate stores are used by the plant for respiration and slight growth during the winter, for initial growth and subsequent rapid growth during the spring, and for secondary growth in the fall." Repeated removal of foliage reduces the plants food reserves thereby leaving it in a weakened state. The proposed action alternative will maintain turnout dates on 127 allotments. The spring turnout dates will be delayed from 14 to 31 days on 45 allotments. These changes would result in the maintenance or improvement of plant vigor, thereby reducing the impact of early spring grazing presently occurring.

Range Improvements

Range improvements including spring developments, water catchment basins and fences are designed and located so as to provide more uniform livestock distribution within allotments. Pastures would be more evenly utilized, thereby aiding improvements in range condition.

The proposed range improvements would be constructed on allotments with high resource value or with significant amounts of public grazing land. Spring development, water catchment basin construction, and fence construction would each cause disturbance of vegetation to varying degrees. Table 4-1 summarizes the disturbance to the area from construction of the proposed range improvements.

The planned water developments and fencing projects are expected to convert approximately 10 percent of the presently unsuitable grasslands to grasslands suitable for livestock grazing.

These acres are presently in good ecological condition. Stocking at the proposed levels would not contribute to the deterioration of range condition on these acres. Approximately 244 additional AUMs would become available for improved livestock distribution caused by these developments.

The construction of all proposed range improvement facilities would result in the long term removal of approximately 6 acres of vegetation. The proposed grazing treatments are considered to be beneficial to the vegetation resource as a whole.

Land Treatments

Approximately 2,900 acres of the EIS area are infested with noxious weeds. These acres are producing much below their natural potential. The proposed action, along with all the alternatives presented in the EIS, proposes to chemically control 1,900 acres infested with noxious weed infestations.

The remaining 1,000 acres are infested with goatweed (Hypericum perforatum) and are presently controlled by the beetle Chrysolina hyperci. Goatweed infestations usually occur in 10 year cycles, the last peak occurring in 1978 (BLM URA 3, 1979). Due to the cyclic nature of goatweed infestations and the success of biological controls, no further impacts are expected to occur.

Following control, treated areas are expected to be invaded by annual grasses and forbs of low grazing value. This would result in an initial range condition rating of poor. Many of the weed control areas are located in close proximity to a seed source of desirable forage species. These seed sources are expected to aid in the improvement of range condition resulting in a 10 percent improvement of poor to fair condition range on treated acres over 20 years. The control of noxious weeds is viewed as a beneficial impact by converting areas of unuseable and undesirable vegetation to useable vegetation.

Forage Production

As a result of improved plant vigor and seedling establishment occurring from proposed grazing treatments, improved livestock distribution from construction of range improvements and increased forage from land treatments, the proposed action is expected to increase long term forage production within the EIS area. The total available forage is estimated to increase from 7,688 AUMs to 8,665 AUMs (see Appendix 4-1 for a review of projected production and range condition). Table 4-2 lists present and project levels of ungulate forage use under the four alternatives.

Poisonous Plants

Livestock losses due to consumption of poisonous plants is not a significant problem in the EIS area. Less that one percent of the total annual livestock loss in the area is attributable to poisonous plants.

Threatened and Endangered Plants

The Coeur d'Alene District has undergone formal consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Environmental Species Act. No detrimental impacts are expected to occur to the threatened or endangered plants listed in Appendix 3-2, Table B from implementation of the proposed action alternative or any of the other three alternatives.

TABLE 4-1
EXPECTED ACRES DISTURBED BY PROPOSED RANGE IMPROVEMENTS

			Acres Disturbed by Unit		Total Acres Disturbed	
Range Improvements	Units	Total	Short Term	Long Term	Short Term	Long Term
Water Catchments	No.	7	0.40	0.40	2.80	2.80
Spring Developments	No.	30	0.50	0.10	15.00	3.00
Fences	Miles	28.20	1.00	0	28.20	0

SOURCE: BLM, Coeur d'Alene District, 1981.

TABLE 4-2
20 YEAR PROJECTION OF AUMS BY MANAGEMENT ALTERNATIVE

		Projected Increase in AUMs from Specific Activities				
Alternative	Initial Available AUMs	Grazing Management	Land Treatment 1/	Range Improvements 2/	Total Available AUMs	Increase in Available AUMs
Proposed Action	7,688	247	486	244	8,665	977
Alternative 1 Current Management	7,688	5	486	0	8,179	491
Alternative 2 Resource Protection	7,688	337	486	124	8,635	947
Alternative 3 No Livestock Grazing	7,688	900	486	0	9,074	1,386

1/ AUM increases are a result of timber harvest and noxious weed control.

2/ Refer to increases caused by converting unsuitable but potentially useable acres to useable acres by construction of range improvements.

SOURCE: BLM, Coeur d'Alene District, 1981.

Summary

Impacts on the vegetation resource from the proposed action would be measured by changes in condition, trend, and forage production. Table 4-3 provides a summary of condition and trend changes under the four alternatives. Changes in condition and trend on an allotment specific basis are available upon request from the Cottonwood Resource Area Office. Table 4-2 gives the projected increase in forage under this alternative. Quantification of changes in cover is not possible due to lack of sufficient data. The projected improvement in overall range condition resulting from the proposed action is expected to slightly improve cover values.

The objective of improving 50 percent of the poor and fair condition acres by one condition class would not be met under the proposed action. The poor and fair condition acres primarily occur on moderately sloped areas and along stream bottoms. These areas would be grazed first and heaviest under all grazing treatments (except rest) and stocking rates.

Terrestrial Wildlife

Introduction

The proposed action alternative would benefit most terrestrial wildlife. Reduced livestock levels (less 863 AUMs) should reduce conflicts for forage, cover, and space. The proposed forage allocation of 1,004 AUMs of competitive forage for big game should further help to reduce competition. Approximately 3,000 acres of wildlife habitat would be improved one condition class in the long term. Approximately 17 miles of riparian areas would be improved one condition class.

There is inadequate data to estimate increased populations that would result from improved habitat on fragmented public land. As previously discussed, public lands comprise a small amount of the total area. Because of the small amount of public lands, overall impacts (adverse and beneficial) to a wildlife population would be insignificant on a regional basis. Refer to Table 4-4 for a comparative impact summary of the proposed alternative and other alternatives. Most beneficial impacts would be realized on improved overgrazed poor and fair condition grasslands and other improved overgrazed important wildlife areas.

Causes of adverse and beneficial impacts are grouped into four main categories: habitat alteration; animal displacement; changes in birth and death rates; and stress to animals.

River Otter

River otter would realize slight beneficial impacts to habitat from reduced livestock grazing, grazing treatments, and season of use. Improved riparian areas would provide improved cover for river otters and improved habitat for river otter prey species. No significant impacts to populations are expected.

Elk

Elk would benefit from improved habitat on 1,800 acres of poor and fair condition grassland ranges in the long term. The proposed forage allocations, grazing treatments, and season-of-use are expected to improve 1,500 acres of winter and spring range and 300 acres of summer and fall range one condition class. On 68,000 acres of timbered areas, no significant impacts to elk are predicted. On the remaining 28,200 acres of grasslands, no significant impacts are predicted.

TABLE 4-3

SUMMARY OF PRESENT AND FUTURE RANGE CONDITION AND TREND BY MANAGEMENT ALTERNATIVE

	Present Condition	Proposed Action	Alternative 1 Current Management	Alternative 2 Resource Protection	Alternative 3 No Livestock Grazing
Range Condition					
Excellent	2,812	2,812	2,812	3,228	5,960
Good	12,593	16,408	12,719	16,055	16,333
Fair	13,775	11,361	13,846	10,882	8,138
Poor	3,843	3,413	3,646	3,307	2,592
Timber	25,708	26,908	26,908	26,908	26,908
Unsuitable	62,300	60,129	61,100	60,651	61,100
Trend					
Upward	590	3,574	590	4,678	11,587
Static	118,128	116,062	118,128	114,995	109,444
Downward	2,313	1,395	2,313	1,358	0

SOURCE: BLM, Coeur d'Alene District, 1981.

Table 4-4
Comparative Impact Summary
(Projected 20-Year Impacts)

Species Affected and General Habitat Summary		Proposed Action			Alternative 1 Current Management			Alternative 2 Resource Protection			Alternative 3 No Livestock Grazing		
		Forage Allocation	Grazing Management	Range Improvements	Forage Allocation	Grazing Management	Range Improvements	Forage Allocation	Grazing Management	Range Improvements	Forage Allocation	Grazing Management	Range Improvements
River Otter (Sensitive)													
Good Habitat Condition		+	+	o	o	o	o	+	+	o	+	+	o
Elk													
Total Affected	98,000 acres												
Good Condition		+	+	o	o	o	o	+	+	o	++	++	o
Poor and Fair Condition	10,800 acres	++	++	o	-	-	o	++	++	o	+++	+++	-
Mule Deer													
Total Affected	118,000 acres												
Good Condition		+	+	o	o	o	o	+	+	o	++	++	o
Poor and Fair Condition	18,000 acres	++	++	o	-	-	o	++	+++	o	+++	++	-
White-tailed Deer													
Total Affected	93,000 acres												
Good Condition		+	+	o	o	o	o	+	+	o	++	++	o
Poor and Fair Condition	9,000 acres	+	+	o	-	-	o	+	+	o	++	++	-
Moose													
Total Affected	8,000 acres												
Good Condition		+	+	-	o	o	-	+	+	-	++	++	-
Poor and Fair Condition	500 acres	+	+	-	-	-	-	+	+	-	+++	++	-
Bighorn Sheep													
Good Habitat Condition (Unoccupied)		+	+	o	o	o	o	++	++	o	++	++	o
Black Bear													
Fair to Good Habitat Condition		+	+	o	o	o	o	+	+	o	+	+	o
Turkey													
Fair Habitat Condition		+	+	o	-	-	o	+	+	o	++	++	o
Grouse													
Fair to Good Habitat Condition		++	++	o	-	-	o	++	++	o	++	++	o
Quail													
Fair to Good Habitat Condition		++	++	o	-	-	o	++	+++	o	+++	++	o
Chukar Partridge													
Good Habitat Condition		+	+	o	o	o	o	+	+	o	+	+	o
Mourning Doves													
Good Habitat Condition		+	+	o	o	o	o	+	+	o	+	+	o
Non-Game Birds and Mammals													
Fair to Good Habitat Condition		+	+	o	-	-	o	+	++	o	++	++	o
Riparian Associated Wildlife													
Poor to Good Habitat Condition		+	+	o	-	-	o	++	+++	o	+++	+++	o

+++ = highly beneficial, ++ = moderately beneficial, + = slightly beneficial, - = adverse, o = no impact
SOURCE: BLM, Coeur d'Alene District, 1981.

Both cattle and elk are primarily grass eaters over most of their range, and diet similarity is considered to be the most important factor affecting competition. It is concluded that with the proposed forage allocation of 449 AUMs of competitive forage for elk and proper stocking levels for livestock that competition for forage will be insignificant.

Anderson and Scherzinger (1975) found that cattle grazing can be used to improve the quality of winter forage for elk. It is predicted that livestock grazing under the proposed treatments would improve winter range forage quality on public lands for elk on the following allotments: 6195, 6240, 6279, and 6289.

Elk prefer to avoid areas that are being used by cattle, and their movements are influenced by the presence of cattle. On allotments proposed for rest or deferred rotation grazing treatments the ungrazed pastures may be used with no social conflict or displacement on the following allotments: 6195, 6233, 6240, 6241, 6247, 6261, 6279, 6281, and 6289.

The proposed range improvements and land treatments would have little or no impacts on elk. Drift fences or other structures in or adjacent to riparian habitats that would physically restrict or reduce livestock use would benefit elk because of improved cover and forage conditions.

Improved habitat conditions on 1,800 acres would allow for more forage and improved quality. This would allow for improved animal condition, which would benefit pregnant and lactating cow elk and reduce stress. Also a slight increase in calving rates and reduced death rates may be expected in these localized areas. Regional increases in population are insignificant from this alternative because public lands comprise such a small percentage of the total habitat. Other factors not controlled by the BLM influence populations. Regionally, present animal condition and population trends would be maintained.

Mule Deer

Mule deer would benefit from improved habitat on 3,000 acres of poor and fair condition grassland ranges in the long term. The proposed forage allocations, grazing treatments, and season-of-use are expected to improve 2,500 acres of winter and yearlong range and 500 acres of summer and fall range by one condition class. No significant impacts are predicted for the remaining 47,000 acres of grasslands and the 68,000 acres of timbered areas.

Initial reductions in authorized livestock use would slightly reduce competition for forage on 45 allotments (16,500 acres). Competition for early spring forage would be slightly reduced on spring use areas of 52 allotments (42,900 acres). Slight competition for early spring forage would continue on spring use areas of 28 allotments (5,500 acres). The proposed forage allocation of 476 AUMs of competitive forage for mule deer and proper stocking levels for livestock would result in overall reduced competition for forage. Mule deer forage would increase and quality would improve, which would benefit animal condition.

Water developments would result in improved livestock distribution, consequently benefiting range condition. Areas that are currently under-utilized and have rank, unpalatable grasses may be better utilized with water developments. Such actions would improve forage quality of bunchgrasses that are rank and unpalatable. Fences and land treatments would have no significant impact on mule deer by meeting BLM specifications for wildlife passage. Improvement in riparian areas would improve mule deer forage, cover, and security areas.

Improved habitat on 3,000 acres would allow for more forage and improved nutritional quality. Improved forage quantity and quality would benefit pregnant and lactating does, reduce stress, and provide improved fawning cover. Improved animal condition should increase birth rate and reduce death rate in localized areas. Regional increases in populations are predicted to be insignificant from this alternative. Overall, present animal condition and population trends would be maintained.

White-Tailed Deer

White-tailed deer would benefit from improved habitat on 1,500 acres of poor and fair condition grassland ranges in the long term. The proposed forage allocations, grazing treatments, and season of use are expected to improve 1,250 acres of winter and yearlong range and 250 acres of summer and fall range by one condition class. No significant impacts are predicted for the remaining 23,500 acres of grassland habitat and 68,000 acres of timbered areas.

Proposed range improvements and land treatments would have no significant impact on white-tailed deer. Improved riparian areas would provide more forage and increased cover.

It is predicted that the combined effects of the proposed forage allocation of 79 AUMs of competetive forage for white-tailed deer, proper stocking levels for livestock, grazing treatments, and reduced season of use conflicts would improve quality and quantity of forage on 1,500 acres. Improved forage conditions would benefit animal condition and reduce stress. No significant increases in population are predicted from this. Overall, present animal condition and population trends would be maintained.

Moose

Moose would benefit from the proposed action with improvements of riparian areas in the Elk City area along American River and Little Elk Creek. Approximately 8,027 acres of moose habitat would realize no significant impact and 200 acres would be benefitted with improved condition in the long term. No formal forage allocations have been made for moose because forage competition was low. Two allotments containing moose habitat (4,882 acres) are proposed for intensive mangement which would include rest rotation grazing treatments that are designed to improve forage quantity and quality. These allotments are Whiskey Creek and Kirk's Fork. Moose utilizing the ungrazed pastures would realize less displacement and disturbance from cattle; also, more forage would be available for moose during the rested period. The Kirk's Fork allotment (1,120 acres) is presently grazed under a rest rotation treatment. Improved habitat would benefit animal condition and reduce stress. Seven allotments are proposed for annual seasonal grazing on 3,345 acres. The proposed proper stocking levels and season of use would maintain forage quantity and quality at good levels.

Improved moose nursery areas for calves would be realized along American River, Little Elk Creek, and Whiskey Creek.

Increased fence construction is not expected to adversely affect moose. However, properly designed and located fences would minimize any possible conflicts.

No significant increase in populations is expected from this alternative. Overall, present animal condition and population trends would be maintained.

Bighorn Sheep

Bighorn sheep would realize very low overall benefical impacts from the proposed action. The Craig Mountain Wildlife Management Area is the only allotment to have increased bighorn sheep use. Approximately 1,217 acres would be designated for bighorn sheep. This allotment would have quality forage and habitat for 50 bighorn sheep. An increase to 50 bighorn sheep would be realized in the long term.

Upland Game

Turkey, grouse, quail, chukar partridge, and mourning doves would realize slightly beneficial impacts in the long term from improved habitat conditions on 3,000 acres. Ground nesting species would benefit from reduced stocking levels. Rested pastures and delayed turn outs on spring range during the nesting period would also reduce competition for forage, cover, and space. Livestock disturbance and displacement would be reduced slightly. Riparian areas would improve on 17 miles of stream benefitting upland game cover and forage. Improved habitat would benefit bird condition, increase nesting success, and improve brood rearing. Chukar partridge would realize slight beneficial impacts from improved habitat, they are also well adapted to present conditions. Overall regionally, present bird condition and population trends would be maintained.

Non-Game Birds and Mammals

Most non-game species would realize slight long term benefical impacts to habitat (3,000 acres) and populations from improved range condition, increased cover, increased food, and improved condition of riparian areas. Improved habitat would improve animal condition resulting in increased birth rates and decreased death rates. Slightly beneficial impacts to populations would be realized.

Riparian Associated Wildlife

Riparian associated wildlife such as furbearers, waterfowl, and other species would realize slight beneficial impacts primarily from reduced livestock use and riparian protection actions. Little change in riparian habitat is predicted on areas without protective measures. It is predicted that 17.5 miles of riparian areas would improve one condition class in the long term. Moderate benefical impacts to wildlife populations would occur in these areas. Other areas would realize no significant impact to habitat or populations.

Aquatic Wildlife

Introduction

There are 56 streams (81.6 miles) crossing public lands containing fish habitat that would be affected by the proposed action alternative and other alternatives to varying degrees. Preliminary assessment has determined that the proposed action alternative and other alternatives would have no significant impact on aquatic wildlife in the major rivers (Snake, Salmon, Clearwater, South Fork of Clearwater, and Little Salmon); consequently, they will not be discussed further.

Overall stream condition as affected by the proposed action and alternatives will be assessed in reference to its impacts on potential for anadromous production, stream bank stability, fish habitat suitability, fish production, and water quality. Refer to Table 4-5 for an overall comparative summary of the proposed action alternative and other alternatives and their effect

Table 4-5
SUMMARY OF CHANGES IN STREAM CONDITION FROM CURRENT SITUATION
(Projected 20-Year Summary)

Fish Habitat Value	Present BLM Stream Miles	Proposed Action BLM Stream Miles	Current Management Alternative 1 BLM Stream Miles	Resource Protection Alternative 2 BLM Stream Miles	No Grazing Alternative 3 BLM Stream Miles
Potential for Anadromous Production					
Excellent	.6	.6	.6	.6	.6
Good	18.1	23.3	18.1	25.5	25.5
Fair	26.0	27.3	24.6	25.1	26.2
Poor to Marginal	28.8	22.3	30.2	22.3	21.2
None	8.1	8.1	8.1	8.1	8.1
Total	81.6	81.6	81.6	81.6	81.6
Overall Streambank Stability					
Excellent	9.6	9.6	9.6	9.6	12.4
Good	40.6	53.4	39.4	55.6	59.1
Fair	26.7	18.6	24.3	16.4	10.1
Poor	4.7	0.0	8.3	0.0	0.0
Total	81.6	81.6	81.6	81.6	81.6
Overall Fish Habitat Suitability					
Excellent	.7	.7	.7	.7	.7
Good	28.0	32.4	25.5	34.6	40.1
Fair	37.4	39.5	38.5	37.3	32.6
Poor	15.5	9.0	16.9	9.0	8.2
Total	81.6	81.6	81.6	81.6	81.6

SOURCE: BLM, Coeur d'Alene District, 1980.

on stream condition. Refer to Appendix 4-2 for a comparative summary of the projected 20-year condition of the proposed action alternative and other alternatives for each stream.

Livestock impact to overall stream condition is primarily from physical damage to stream banks, decreased streamside vegetation, and resulting impacts to the aquatic ecosystem. In many cases livestock grazing may not be responsible for the present stream condition. Other factors such as low flows, natural hydrological limiting factors, migration barriers, high gradient streams, and off-site impacts are the primary cause for the present situation.

Preliminary assessment has determined that approximately 11.6 miles of stream are in poor or fair condition because of contributing impacts from livestock grazing. Consequently, the proposed action alternative and other alternatives would have the most significant impacts on these stream segments. Refer to Appendix 2-5 for streams identified as having adverse impacts because of livestock. These streams are most likely to be impacted by the proposed range management program alternative and other alternatives. Other streams would be impacted by the proposed action alternative and other alternatives, but not to a lesser degree.

Forage Allocation

Reduced forage allocation (less 863 AUMs) is not expected to result in any overall significant changes in stream condition. A few streams may realize a slight beneficial impact from reduced forage allocation. Livestock have historically utilized riparian areas first and heaviest of all range types because of the following factors which are preferred by livestock: water, shade, forage, moderate slopes, and placement of salt. Consequently, even with reduced stocking levels such areas will continue to be used first and will often be overgrazed before cattle will utilize upslope areas or areas distant from water. Phillips (1965) found that cattle normally graze heavily on bottomland near water before moving onto the steeper upland country.

Grazing Management

Because of the nature of livestock to utilize riparian areas heavier and first, no change is predicted under any grazing treatment. Hormay (1976) concluded that vegetation along drainages is utilized heavily under any grazing treatment.

Range Improvements

No significant impact to stream condition is expected from fencing and land treatments. A slight beneficial impact would be realized from water developments because some reduction of grazing use of riparian zones should result.

Additional Management Measures

Additional management measures such as fence construction and brush piling that reduce or restrict livestock use of stream banks are expected to be the primary factors influencing improvement in stream conditions. Any action which would physically restrict or reduce livestock utilization of riparian areas and stream banks would result in increased vegetation, reduced streambank damage, and reduced erosion. These actions are expected to have moderate beneficial impacts on 13.2 miles of streams which include Robinson Creek, Cottonwood Creek (Salmon River), Eagle Creek, China Creek, Trail Creek, American River, Little Elk Creek, Cottonwood Creek (Clearwater River), Little Canyon Creek, and Big Canyon Creek. No significant impacts or slight beneficial impacts would be realized on the other streams.

The effectiveness of riparian protection structures and other riparian protection measures have not been documented quantitatively for stream condition improvement, but appear to produce beneficial impacts to the aquatic resource.

Fish Habitat, Fish Production, and Water Quality

Improved habitat conditions would benefit fish production from reduced sedimentation; improved cover and cooler water temperatures; improved aquatic foods; and improved spawning and rearing areas. Fish production should increase slightly on 17.5 miles, and no significant impacts would occur on 64.1 miles of stream.

Cultural Resource

Impacts to both prehistoric and historic resources would increase slightly. Greater concentrations of livestock around springs and other developments would result in these impacts. Human activity around developments and increased access to developments could lead to increased vandalism. Impacts to cultural resources will result to a greater extent in those pastures that are utilized when the soil is wetter and subject to greater compaction and vertical displacement of cultural material. None of the known cultural resources in the Northern Idaho Grazing EIS area would be impacted by range developments.

The BLM recognizes that some of the activities involved in implementation of the rangeland management program could affect cultural properties. Because of this fact, the BLM would conduct an intensive field (Class III) inventory as specified in the BLM Manual Section 8111.14, supplementing previous surveys to locate, identify, and evaluate properties in the impact area that may be eligible for inclusion in the National Register of Historic Places.

If cultural resources are within the area of potential impact, a determination of eligibility would be prepared in consulation with the State Historic Preservation Officer (SHPO) and in compliance with 36 CFR 1204. If the Keeper of the Register determines there are National Register eligible properties within the potential impact area, the criteria of effect and adverse effect would be applied as appropriate.

When cultural resources are identified, every effort would be made to avoid adverse effects. However, where that is not possible the BLM would consult with the SHPO and the Advisory Council on Historic Preservation in accordance with the Programmatic Memorandum of Agreement by and between the Bureau and the Council dated January 14, 1980, which sets forth a procedure for developing appropriate mitigative measures to lessen the impact of adverse actions.

A determination of no effect based upon the grazing management plan presented in the proposed action and the alternatives has been reached between the Bureau and the Idaho State Historic Preservation Office.

Recreation

On the majority of BLM administered lands, there is little or no impact on recreation from grazing. Most use conflicts occur in or near concentrated use areas, primarily on developed and undeveloped recreation sites on the Salmon and Snake rivers.

Neither the proposed action nor any of the alternatives are expected to cause any substantial improvement or degradation in existing hunting or fishing success. Increased conflicts that would occur between recreationists and livestock from any alternative except no grazing would be a result of increased recreation use and not from any changes in proposed season of use. Adjustments in the season of use in the proposed action as well as the protection alternative would minimize these use conflicts. Current management would do nothing to the current level of user conflict. Elimination of grazing would only eliminate the use conflicts from public land, not from all land where recreation use occurs.

Livestock Grazing

The proposed action alternative would implement AMPs on 14 allotments, continue the present AMP on allotment 6261, and change the season of use on 58 allotments. Appendix 2-3, Table A shows changes in grazing treatments, season of use, and forage allocation (AUMs). These changes should increase vigor and production of preferred species. (Refer to Table 4-2 for a summary of projected forage allocation.) The expected improvement in livestock forage should be reflected by improved livestock conditions. The proposed action alternative calls for an initial reduction of 863 AUMs from current management on 44 allotments to balance total forage use with currently existing quantities. Impacts to livestock operators concerning adjustments in AUMs are discussed in the economics section of this chapter.

The long term impacts obtained from the season-of-use adjustment, grazing treatments, and land treatments would create an increase of forage available for allocation (see Vegetation section of this chapter). This would produce an increase of approximately 977 AUMs over the initial stocking rate of the proposed action alternative within 20 years.

The 14 proposed AMPs under the proposed action would require livestock to be moved regularly and more often. This would require livestock to adjust to new terrain, water sources, and salt. The adjustment process may temporarily cause a slight decrease in livestock performance but should be minimal. Over the long term it is expected that livestock performance would increase because of the increased quality of forage. Closer supervision of herds by operators would be required on allotments with AMPs.

The proposed action calls for changes in season of use on 58 allotments within the EIS area. Later turnout dates would be established on 46 of the 58 allotments. Turnout dates would average 2 weeks later than what is presently occurring for spring turnout. This would require holding livestock on private pastures or in feed lots later into the spring causing operators to purchase additional forage.

The proposed action alternative calls for a change of stock on allotment 6233 from cattle-horse to cattle only. This would have a long term negative effect on the operator by causing the operator to find other pasture for the horses.

Economics

Income

The proposed action alternative would initially reduce grazing in the EIS area by 7 percent. On an individual operator bases this would vary from no reduction to a reduction of 87 percent. Initially the total AUM loss would be 514 with an associated income loss of $2,900. This would be an average of 3 AUMs and $18 lost per operator (162 operators). The minimum loss would be 0 AUMs and the maximum loss would be 162 AUMs and $900. Of the 162 operators, 123 would experience no reduction in grazing priviledges. Among the 39 operators facing reductions, the average AUM reduction would be 13 and income lost would be $72. The five operators with the largest reductions account for 94 percent of the total AUM and income losses. Appendix 4-3 outlines how these income losses were calculated.

As range improvements, land treatments, and management systems are implemented, AUMs would be gradually regained. By the 10th year, all lost AUMs would be regained, and by the 20th year, there would be 6 percent more AUMs available than are currently being used. This translates to a gain of 460 AUMs and $2,600 in annual income.

There would be $190,500 spent by the federal government to install range improvements and perform land treatments under this alternative. Roughly $40,000 of this amount would be spent in the five-county regional economy. The range improvements would be installed over a 4-year period, and the land treatments would occur within 10 years. Maintenance of the range improvements would cost a total of $4,500 annually. Approximately $2,700 of this would be spent in the local economy. Refer to Appendix 4-3 for an explanation of how these range improvement income changes were calculated.

Income changes due to construction and maintenance of range improvements and due to adjusted AUM levels to lease holder create additional, or secondary, impacts to the other portions of the regional economy.

Initially, these secondary income changes would be an additional loss of $450. By the 10th and 20th years, these changes would be gains of $440 and $1,100 respectively. These secondary income impacts have been estimated through the use of a computerized regional economics model called DYRAM. For a detailed explanation of this model see Appendix 4-3.

For comparison purposes, the regional income impacts of each alternative have been discounted to their net present worth. Discounting is a procedure that allows comparison of differing income streams by accounting for the time value of money. A detailed explanation of this process can be found in Appendix 4-3. The net present worth of the regional income changes due to the proposed action would be +$50,000.

Employment

The proposed action alternative would have no impact on employment in the five-county economic region.

ENVIRONMENTAL CONSEQUENCES OF THE CURRENT MANAGEMENT ALTERNATIVE (ALTERNATIVE 1)

The current management alternative would continue livestock use at the present level of 7,198 AUMs. There has been no formal allocation of forage to wildlife at the present time. Details of this alternative are described in Chapter 2. The analysis of this alternative involved the following assumptions:

1. Livestock grazing would take place as presently authorized.

2. No cooperative livestock grazing plans would be developed.

3. Public funds would not be used to build range management facilities to control livestock movement.

Soils Resource

Overall impacts from this alternative would again be of such a small scale and scattered over such a large area as to be unnoticeable. In relation to the current situation, there would be a slight increase in erosion from the existing levels.

Water Resource

Under current management there would be a slight decrease in watershed condition from the continued downward trend of the range. The effects would be most apparent on those areas that are presently in low-fair or poor condition. Without the range development projects, little change in stream or water quality would be expected. The noxious weed spraying would provide for localized improvement in watershed condition and would help prevent further deterioration caused by the spread of noxious weeds.

Vegetation Resource

The current management alternative would, in the long term, result in a general decline of current range condition and trend. The impacts of spring grazing prior to proper phenological development of key forage species would continue. Improved livestock distribution from new range improvement projects would not occur resulting in continued heavy grazing of the more gently sloped areas. The level of livestock use would continue to be over allocated in 45 allotments. Refer to Table 4-3 for the projected 20 year change in range condition and trend. (Appendix 4-1 explains the methodology used in determining changes in range condition and trend.)

Terrestrial Wildlife

Overall, no significant impacts to wildlife population levels would be realized. Present animal condition and population trends would be maintained. Proposed livestock stocking levels, grazing treatments, and season of use would maintain existing competition for forage, cover, space, and water at present levels. Over authorization of 863 AUMs of forage would result in some competition between livestock and big game ungulates for forage on 45 allotments. Big game ungulate competition for early spring forage would continue on 79 allotments. Wildlife would not have available or be formally allocated 1,004 AUMs of competitive forage. No significant improvement in range condition would occur on 18,000 acres.

Approximatley 7.1 miles of riparian areas would be degraded further.

River Otter

No significant impact to river otter habitat or population levels is expected.

Elk

Competition for forage would remain at present levels with 449 AUMs of needed forage not available or formally allocated for elk use. No improvement on 10,800 acres of poor and fair condition habitat would occur. Conflicts and competition for forage, cover, and space would continue at present levels. Overall, no impacts on 68,000 acres of timbered land and 30,000 acres of grasslands are expected. No impacts from range improvements or land treatments are expected.

No significant impacts to population levels are expected from this alternative. Overall, animal condition and population trends would be maintained or slightly lower than current levels on public lands. However, no significant change on a regional basis is expected.

Mule Deer

Competition for forage would remain at present levels with 476 AUMs of needed forage not available or formally allocated for mule deer use. No improvement on 17,000 acres of poor and fair condition habitat would occur. Conflicts and competition for forage, cover, and space would continue at present or higher levels. Competition for early spring forage would continue on 79 allotments in the Salmon, Snake, and Clearwater river canyons. Overall, no impacts on 68,000 acres of timbered land and 49,000 acres of grassland are expected. No impacts from range improvements or land treatments are expected. Overall, animal condition and population trends would be maintained or slightly below current levels on public lands.

White-tailed Deer

Competition for forage would remain at present levels with 79 AUMs of needed forage not available or formally allocated for white-tailed deer use. No improvement on 9,000 acres of poor and fair condition habitat would occur. Conflicts and competition for forage, cover, and space would continue at present levels. Overall, no impact on 68,000 acres of timbered land and 25,000 acres of grasslands is expected. No impacts from range improvements and land treatments is expected. Overall, present animal condition and population trends will be maintained or slightly reduced on public lands.

Moose

No significant impact on 8,227 acres of moose habitat is expected. Localized competition for forage, cover, and space would continue at present levels along American River and Little Elk Creek. No impacts from range improvements and land treatments are expected. No significant impacts to populations are expected from this alternative. Present animal condition and population trends would be maintained.

Bighorn Sheep

No impact would be realized by bighorn sheep populations and habitat. Unoccupied habitat would continue to be used as under current management.

Upland Game

Turkey, grouse, and quail would realize slight adverse impacts on 7,000 acres of poor and fair condition rangelands. Conflicts on overgrazed riparian areas, nesting, and brood rearing areas would continue at present levels or slightly higher. Chukars and doves would realize no significant impact from this alternative. Population trends are expected to continue at present levels with annual fluctuations that are caused by climatic conditions.

Nongame Birds and Mammals

Nongame birds and mammals would realize slight adverse impacts to habitat and populations on 18,000 acres of poor and fair condition range. Competition for forage, space, and cover would occur in these areas at slightly higher levels. No significant impact to populations, animal condition, and birth and death rates is expected.

Riparian Associated Wildlife

Riparian associated wildlife would realize slight adverse impacts to populations and habitat. Wildlife would continue to be displaced from poor condition riparian areas that are overgrazed. No riparian improvement would be expected without actions that would physically reduce or restrict livestock use of riparian areas. It is predicted that 4.8 miles of riparian areas would decline one condition class, and 5.7 miles of currently poor condition areas would be degraded further.

Aquatic Wildlife

This alternative would have overall slight adverse impacts on aquatic wildlife. Refer to Table 4-5 for an overall comparative summary and to Appendix 4-2 for a comparative summary of each stream. Approximately 10.5 miles of stream would be degraded. Stream bank erosion and loss of stream bank cover attributed to livestock grazing would continue, which in turn would lead to increased sedimentation in the stream. Pools would decrease in size and number and water temperature would increase. Spawning areas and fish production would be reduced.

Approximately 71.1 miles of stream would experience no significant impact. Livestock grazing on these streams has not been a significant influence on the present condition.

In the long term, a decline in condition class from this alternative would adversely affect 1.4 miles of stream for anadromous production potential; 4.8 miles of stream for streambank stability; and 3.9 miles of stream for fish habitat suitability. Approximately 5.7 miles of stream that have an overall rating of poor would be degraded further. Fish production would realize slight adverse impacts on 10.5 miles of stream and no significant impacts on 71.1 miles of stream.

Cultural Resource

Impacts to cultural resources would continue at the current level. However, as sites are discovered, protection measures would be incorporated to minimize damage to these sites.

Livestock Grazing

Under alternative 1, there would be no changes in season of use or grazing treatments; therefore, no short term impacts to livestock are anticipated. Present forage allocated to livestock would remain the same (7,198 AUMs). There would be 44 allotments with an over obligation of 863 AUMs. It is estimated that this over obligation would reach 372 AUMs in 20 years (see Table 4-2). This over obligation would decrease because of AUM increases from timber harvest and noxious weed control. There would be no short term adverse impacts, but long term impacts would cause weight loss to grazing animals if this same over obligation occurs on private lands. Livestock would have to forage on less desirable forage or operators would have to locate additional forage for their livestock.

Economics

Income

Alternative 1 would have no impact on rancher income or the livestock industry of the EIS area.

Approximately $42,000 would be spent to control noxious weeds. Of this amount, roughly $6,270 would be spent in the regional economy. Secondary impacts would add an additional $400 to the economy of the region. This control of noxious weeds would occur over a 10-year period following implementation of this alternative. Total income gain would be $6,670, or $667 annually for 10 years. The net present worth to the regional economy of this alternative would be +$46,000.

Employment

It is not anticipated that this alternative would have any impact on employment in the five-county region.

ENVIRONMENTAL CONSEQUENCES OF THE RESOURCE PROTECTION ALTERNATIVE (ALTERNATIVE 2)

Under the resource protection alternative, livestock grazing would be allowed on 167 allotments at a level of 6,285 AUMs. Specific design features are described in detail in Chapter 2. The analysis of this alternative has been conducted using the same assumptions as were used for the proposed action.

Soils Resource

Overall impacts from the resource protection alternative would be slightly more beneficial to the soil resource than from the proposed action alternative. Increased benefits would result from lower livestock use levels, changes in season of use, and additional drift fences in riparian areas. Overall, the improvement would be insignificant. The acres treated for noxious weeds would be the same as all other alternatives.

Water Resource

Impacts from the resource protection alternative would be similar to those identified for the proposed action alternative. There would be a more rapid improvement in watershed condition from the additional delay in turnout date and from the protection of more riparian areas with drift fences.

Vegetation Resource

Vegetation Allocation

Implementation of this alternative would result in a 913 AUM reduction from present livestock use levels. The combined totals of livestock and wildlife forage allocation levels would not exceed the present forage production capacity of the range.

Season of Use

Under the resource protection alternative more rapid improvement in plant vigor would occur resulting in increased levels of seed production and range improvement. The impacts caused by the proposed changes in spring turnout dates would be beneficial to the overall vegetation resource.

Grazing Treatments

The impacts to vegetation from the grazing treatments proposed under this alternative would be similiar to those discussed in the proposed action alternative.

Range Improvements

The impacts to vegetation caused by construction of range improvements would be the same as those discussed in the proposed action alternative. The construction of all proposed range improvement facilities would adversely impact approximately 6 acres of vegetation in the long term. The benefits resulting from the construction of the proposed range improvements are the same as those described in the proposed action alternative. However, because of the larger number of range improvements, the improvement of vegetation condition would be of a greater magnitude.

Land Treatments

The noxious weed control program would continue under this alternative. The impacts are the same as described in the proposed action.

Summary

The resource protection alternative would, in the long term, result in an improvement of current range condition and trend above that of the proposed action alternative. Spring grazing would occur at the proper phenological development of key forage species allowing for their biological needs. Refer to Table 4-3 for the projected 20-year change in range condition and trend. The methodology used in predicting changes in range condition and trend is explained in Appendix 4-1.

Terrestrial Wildlife

This alternative would benefit most terrestrial wildlife. Wildlife habitat condition would improve one condition class or more in the long term on 4,500 acres. A reduction of 913 AUMs in present livestock use would provide more food and cover for wildlife. On 10,760 acres, all vegetation would be available for wildlife because of cancellation of livestock grazing privileges. Formal forage allocation of 1,004 AUMs would benefit elk, mule deer, and white-tailed deer. Approximately 19.7 miles of riparian area would be improved one condition class. Delayed turnout dates on 79 allotments would reduce forage competition for early spring forage. Refer to Table 4-4 for a comparative impact summary.

River Otter

Same impacts realized as the proposed action. Delayed turnout dates would reduce use of riparian areas slightly.

Elk, Mule Deer, White-Tailed Deer

Additional slightly beneficial impacts above those discussed in the proposed action would be realized from reduced livestock use (less 913 AUMs); delayed season of use and reduced competition for early spring forage on 79 allotments; and long term improved habitat conditions on 4,500 acres.

On poor and fair condition areas, long term habitat improvement would include improvement of one condition class on 2,700 acres of elk habitat, 4,500 acres of mule deer habitat, and 2,250 acres of white-tailed deer habitat. Reduced early spring competition for forage would slightly benefit elk and white-tailed deer and moderately benefit mule deer. Improved habitat and reduced competition for early spring forage would improve animal condition, reduce stress, and benefit pregnant and lactating animals. A slight increase in population levels could be expected from this alternative on public lands. Overall animal condition and population trends would be maintained.

Moose

The same impacts would be realized as in the proposed action alternative.

Bighorn Sheep

Bighorn sheep could realize moderately beneficial impacts to habitat and populations. An increase of 150 bighorn sheep would be realized in the long term. More habitat (9,217 acres) would be made available to bighorn sheep on public land. Habitat areas would include Craig Mountain Wildlife Area (1,217 acres), Rattlesnake Ridge (2,000 acres), Divide Creek (2,000 acres), and Wapshilla Ridge (4,000 acres). These areas would have no livestock use. Competition with livestock for forage, cover, water, and space would be eliminated. Improved habitat would benefit animal condition, increasing birth rate and decreasing death rate. Such improvements to habitat is only slightly beneficial because of the overall good condition of the range. Other unoccupied bighorn sheep habitat would continue to be used as under current management.

Upland Game

Additional slightly beneficial impacts above those discussed in the proposed action would be realized from reduced livestock use, reduction of public lands grazed by livestock, delayed season of use, and reduced livestock use of riparian areas. Improved habitat condition would be realized on 4,500 acres.

The delayed season of use, reduced livestock use, and reduced acres of public lands grazed by livestock would moderately benefit ground nesting upland game. Reduced livestock disturbance of nesting areas would be moderately beneficial. Nesting birds would realize less livestock disturbance and less displacement. Increased nesting success would be realized. Livestock use would not be as concentrated on early green-up areas where turn out is delayed because more area would have preferred green forage. Overall, slightly beneficial impacts to populations would be realized.

Nongame Birds and Mammals

Nongame species would realize overall slightly beneficial impacts to 4,500 acres of improved habitat. Improved habitat should slightly increase populations with more food and cover.

Riparian Associated Wildlife

Riparian associated wildlife would realize the same beneficial impacts as the proposed action alternative. Some slight beneficial impacts would be realized from reduced livestock use and delayed spring grazing.

No livestock grazing would occur along 2.2 miles of Little Canyon Creek (Allotment 6152) Presently the riparian habitat is in poor condition, but in the long term it would be improved to good condition. Improved cover and forage should benefit animal condition and reduce stress. Moderate increases in populations would occur along Little Canyon Creek.

Aquatic Wildlife

This alternative would have slightly increased benefits to aquatic wildlife compared to the proposed action. Refer to Table 4-5 for a summary of changes and Appendix 4-2 for a comparative summary of each stream. Reduced livestock grazing would result in no impact to slight beneficial impacts, basically the same impacts as the proposed action alternative. The deferred season of use is expected to have slight beneficial impacts on the affected streams; however, such impacts are probably insignificant. The exclusion of grazing along Little Canyon Creek (Allotment 6152) would result in significant beneficial impacts with reduced stream bank damage and increased cover. Stream bank stability (presently in poor condition) and fish habitat suitability (presently in poor condition) are expected to change to good condition. Potential for anadromous production (presently in poor condition) is expected to be in fair condition. Overall beneficial impacts to aquatic wildlife would be realized on 19.7 miles. No significant impacts would be realized on 61.9 miles.

Cultural Resource

Implementation of the resource protection alternative would result in less impacts from livestock because of less livestock use. Maximized vegetative response would decrease erosion. Later turnout dates would benefit those cultural resources in areas that tend to dry slower and would prevent extensive vertical displacement of cultural materials in those areas. The impacts from range developments would be about the same as the proposed action alternative.

Livestock Grazing

Grazing treatments under this alternative would effect livestock to the same extent as the proposed action alternative.

Changes in season of use (turnout dates) would cause operators to either purchase additional forage or to keep their livestock on private pasture for longer periods.

Although there would be an initial reduction of 913 livestock AUMs and changes in the season of use and grazing treatments, it is estimated that 7,160 AUMs would be allocated to livestock in 20 years (see Table 4-2). Increased vigor and production of preferred forage species would occur resulting in improved livestock performance.

Under this alternative five allotments would have leases cancelled in full. This would have little effect on allotments 6143, 6167, and 6214. Private lands comprise the majority of the suitable grazing lands on these allotments. The operator of Allotment 6152 would have to find additional spring and summer pasture for his livestock. Allotment 6271 is presently unleased.

Portions of four allotments would not be authorized for livestock grazing resulting in a decrease in 294 AUMs for livestock. These reductions would primarily affect livestock on winter and spring range causing the operators to find additional pasture, buy hay, or reduce numbers.

Economics

Income

Alternative 2 would initially reduce grazing in the EIS area by 14 percent. On an individual operator basis, this would vary from no reduction to a reduction of 100 percent. Initially, the total AUM loss would be 913 with an associated income loss of $5,200. This would be an average of 6 AUMS and $33 loss per operator (162 operators). The minimum loss would be 0 AUMS and the maximum loss would be 162 AUMs and $900. Of the 162 operators, 116 would experience no reduction in grazing privlledges. Among the 46 operators facing reductions, the average AUM loss would be 20 and income lost would be $111. The five operators with the largest reductions account for 64 percent of the total AUM and income losses.

As range improvements, land treatments, and management systems are implemented, AUMS would be gradually regained. After 10 years, 55 percent of the lost AUMs would be regained, and by the 20th year, 99 percent of the lost AUMS would be regained. This would reduce the income losses to the livestock industry in the 10th and 20th years to $2,400 and $400 respectively.

The BLM would spend $245,450 to install range improvements and perform land treatments. Roughly $50,000 of this amount would be spent in the five-county regional economy. The range improvements would be installed over a 4-year period, and the land treatments would occur within 10 years. Maintenance of the range improvements would cost a total of $6,200 annually. Approximately $3,700 of this would be spent in the local economy.

Income changes in the livestock industry associated with the construction and maintenance of range improvements would lead to additional, or secondary, impacts to the other portions of the regional economy. Initially, these secondary income changes would be an additional loss of $1,100. By the 10th year this additional loss would be reduced to $560. By the 20th year there would be a secondary gain of $90.

The net present worth of the regional income changes due to this alternative would be +$32,000.

Employment

This alternative would have no impact on employment in the five-county economic region.

ENVIRONMENTAL CONSEQUENCES OF THE NO GRAZING ALTERNATIVE (ALTERNATIVE 3)

Under alternative 3, all livestock grazing leases on public land would be cancelled. The analysis has been conducted under the following assumptions:

1. Livestock grazing would not take place on public land.

2. Livestock grazing use would continue on private land.

3. Public funds would not be used to construct fences to control livestock movement.

Soils Resource

Alternative 3 would result in the greatest overall improvement in soil erosion by eliminating the damage to the resource caused by livestock use and range improvements. Land treatments to control noxious weeds would continue at current levels; impacts would be identical to those identified in the proposed action alternative. Overall, the reduction of erosion would be insignificant because of the present low erosion rate and good condition of the range.

Water Resource

The no grazing alternative would result in an overall improvement in watershed condition on BLM lands. The benefits of the overall improvement in watershed condition would be more than offset if the ranchers try to make up for the lost AUMs by heavier use of the adjoining private lands.

Vegetation Resource

Vegetation Allocation

Under this alternative all vegetative matter produced would be available for improving wildlife habitat, watershed, and visual resource values.

Season of Use

The most rapid improvement in plant vigor would be realized under the no grazing alternative resulting in increased rates of seed production and seedling establishment, and improved site condition.

Grazing Treatments

No livestock grazing would be allowed on public lands found within the Coeur d'Alene District; therefore, no grazing management treatments would be required. Livestock would not be grazing on stream bottoms and gently sloped areas resulting in pronounced improvement in condition on these areas (see Table 4-3).

Range Improvements

No construction of new range improvements would occur. Impacts from the removal of existing improvements that adversely affect wildlife would not be significant.

Vegetation Treatments

The noxious weed control program would continue. Impacts would be identical to those described in the proposed action.

Summary

The most rapid improvement in plant vigor would occur under the no grazing alternative. The improved plant vigor would reverse downward trend and accelerate the rate of improvement in range condition. Range improvements which do not benefit wildlife or other resource needs would be removed.

Refer to Table 4-3 for the projected 20-year change in range condition and trend. The methodology used in predicting changes in range condition and trend is explained in Appendix 4-1.

Terrestrial Wildlife

This alternative would benefit most terrestrial wildlife. Wildlife habitat would improve one condition class or more in the long term on 19,000 acres. A reduction of 7,198 AUMs for livestock use would provide more food and cover for wildlife. All vegetation would be available for wildlife use. No livestock competiton for forage, cover, space, and water would occur. Approximately 19.7 miles of riparian areas would be improved one condition class or more. Refer to Table 4-4 for a comparative impact summary.

River Otter

Slight to moderate beneficial impacts to river otter habitat would be realized. Increased prey base and cover from implementation of this alternative would benefit overall animal condition. No significant increases in populations are predicted.

Elk, Mule Deer, White-Tailed Deer

All livestock competition for forage, cover, space, and water would be eliminated on all public lands presently grazed by livestock. On poor and fair condition habitat areas, long term habitat condition would include improvement of one condition class or more on 9,600 acres of elk habitat; 16,000 acres of mule deer habitat; and 8,000 acres of white-tailed deer habitat.

Anderson and Scherzinger (1975) found that on grass winter ranges in the Blue Mountains of northeastern Oregon, which are similar to areas in the EIS area, that no cattle grazing may result in adverse impacts to forage quality and carrying capacity. On grass winter ranges, forage quality of desirable perennial bunchgrass would be reduced as plants become unpalatable. Moderate livestock grazing can benefit big game winter range values when selective spring and summer grazing of grasses promotes shrub production. Also, light grazing of shrubs can promote resprouting and keep shrubs at an available grazing height for big game, instead of growing out of reach and becoming decadent. In the long term it is predicted that forage quality would decline slightly on approximately 25,000 acres of good and excellent condition range presently grazed by livestock. The impacts to wildlife habitat and populations are not known.

Slightly adverse impacts would be realized from the increased fencing required to control trespass livestock. Fence locations along boundaries would not always facilitate big game movement. Increases in animal injury or death would occur from increased fencing. The overall impact from fence construction would be slightly adverse. No significant impacts from land treatments are predicted.

Generally, it is predicted that improved habitat would improve animal condition, benefit pregnant and lactating mammalian animals, reduce stress, increase birth rates, decrease death rates, and lessen displacement. Slightly beneficial impacts to populations are expected from this alternative. Overall, slightly beneficial impacts to animal condition would be realized and population trends would be maintained at slightly higher levels.

Moose

Moose would realize moderately beneficial impacts to habitat from no livestock grazing. No grazing of riparian areas would increase forage and cover for moose in important use areas. Improved animal condition would occur by eliminating livestock grazing on important use areas. Overall animal condition and populations trends would be maintained.

Bighorn Sheep

Beneficial impacts to bighorn sheep habitat would be realized. However, with no transplanting of sheep into unoccupied habitats, no increases in populations would occur.

Upland Game

Turkey, grouse, quail, and mourning doves would realize beneficial impacts to habitat from no livestock grazing in the long term on 19,000 acres. Upland game populations would be improved slightly. Primary beneficial impacts would be realized in overgrazed riparian areas, nesting areas, and brood rearing areas. Chukars are quite adapted to grazed areas. Preferred winter forage is cheatgrass, and long term impacts to chukar partridge may be adverse with improved range condition. However, improvement of overgrazed riparian areas and nesting areas would be beneficial to chukar partridge. Overall, slightly beneficial impacts would be realized for upland game bird condition and population.

Nongame Birds and Mammals

In the long term, nongame birds and mammals habitat and populations would realize moderately beneficial impacts from no livestock grazing on 19,000 acres. Increased cover and forage on overgrazed areas would benefit all species. Overgrazed riparian areas would be improved by eliminating grazing. Lack of livestock competition would allow for more nongame species diversity. Increase in prey species would benefit predators. Overall, slightly beneficial impacts to animal condition and slightly beneficial impacts to population trends would be realized.

Riparian Associated Wildlife

Riparian associated wildlife would realize beneficial impacts from no livestock grazing on 19.7 miles of streams. Good condition riparian areas would realize no significant improvements. Overgrazed poor condition riparian areas are expected to improve to good condition within 10 years. Improved cover and forage would benefit animal condition, improve reproduction, and reduce death rates. Overall, slightly beneficial impacts to animal condition and slightly beneficial impacts to population trends would be realized.

Aquatic Wildlife

This alternative would have the most significant beneficial impact on aquatic wildlife. Refer to Table 4-5 for a summary of changes and Appendix 4-2 for a comparative summary for each stream. The no grazing alternative would have long term beneficial impacts on aquatic resources along Cottonwood Creek (Salmon River), Trail Creek, American River, Little Elk Creek, Little Canyon Creek, and Big Canyon Creek. Approximately 19.7 miles of stream are expected to increase one condition class or more for streambank stability and fish habitat suitability. Streams with poor and fair potential for anadromous production are expected to increase one condition class or more on the above streams. Other streams are expected to realize beneficial impacts but not as significant because of one or more of the following: 1) stream presently in good condition, 2) off site impacts, and 3) other conflicting uses and limiting factors not associated with livestock grazing.

The elimination of livestock grazing would have an overall beneficial impact on all aquatic wildlife habitat. The degree of impact is dependent on existing influence of livestock grazing on present stream condition. Fish habitat, fish production, and water quality would be benefitted accordingly.

Overall, fish habitat would realize slight to moderate beneficial impacts. Fish production would realize a slight beneficial impact. Water quality would realize a slight to moderate beneficial impact. In the long term this alternative would benefit aquatic wildlife by improving 11.7 miles of stream one condition class for potential anadromous production; improving 19.7 miles of stream one condition class for stream bank stability; and improving 17.2 miles of stream one condition class for fish habitat suitability.

Improved habitat conditions would benefit fish production from reduced sedimentation, enhanced cover, aquatic foods, and spawining and rearing habitat. Lower water temperatures would be an additional benefit. Fish production would realize slight to moderate beneficial impacts on 19.7 miles of stream, and no significant impacts would occur on 61.9 miles of stream.

Cultural Resource

Impacts to cultural resources from livestock grazing would cease. An increase in vegetative cover and a decrease in erosion would benefit cultural resources.

Livestock Grazing

Elimination of livestock grazing from public lands would cause an insignificant decrease in total livestock production over the entire EIS area. Forage lost off public lands each year would amount to 6,684 AUMs. This alternative would have varying degrees of effect on individual allotments, depending on the size of the allotment in relationship to the amount of public land within the allotment.

Use of private land for grazing would probably increase with elimination of grazing on public land if herds were not reduced. If management and production of private lands were not improved to sustain the increased grazing use, the decline in vegetative condition and production would have a significant adverse impact on livestock over the long term.

Because of the fragmented and intermingled nature of public land within the EIS area, trespass (unauthorized livestock use) could be a serious problem. It would be doubtful that all livestock trespass could be prevented with additional fencing or supervision. Although public lands constitute an insignificant total of the AUMs in the EIS area, public lands are located adjacent to or contain important watering areas (Salmon River). Livestock would then have to travel to less desirable watering sites or operators would have to develop additional sites on their private land. Fragmented public lands are also used as trailing areas within allotments consisting mostly of private lands. If grazing were eliminated from these fragmented public lands, operators would have to find less desirable methods to move livestock from one part of their allotment to another part of their allotment. This would cause livestock to use available forage on private lands less efficiently.

Economics

Income

Alternative 3 would completely eliminate grazing on public land in the EIS area. The annual income loss to the livestock industry in the EIS area would be roughly $40,000. This would be less than one percent of the five-county regional livestock income in 1978. This loss would average $250 per lessee. The minimum loss would be $5 and the maximum loss would be $4,500. As a general rule, the lease holders in the EIS area are not highly dependent on BLM grazing privileges. No lessees would go out of business as a result of this alternative.

Approximately $42,000 would be spent to control noxious weeds. Of this amount, roughly $6,300 would be spent in the regional economy. This weed control would occur over a 10-year period following implementation of this alternative.

The secondary income impacts of the losses in the livestock industry and gains due to land treatments would create an additional income loss of roughly $14,000 spread through the entire regional economy. The net present worth to the regional economy of this alternative would be -$560,000.

Employment

The direct income losses in the livestock industry would lead to a loss of four jobs. The secondary losses would cause the loss of one additional job. These job losses would continue throughout the life of this alternative.

RELATIONSHIP BETWEEN SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY AND THE IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES

Table 4-6 summarizes the relationship between the short-term use of the environment and long-term productivity. As used in the table, "short-term" is defined as the 5-year period assessed in this document, and "long-term" is the period of time during which impacts from an alternative may still be measured.

Also summarized in the table are irreversible and/or irretrievable commitments of resources. For this analysis, "irreversible" describes any action, impact, or use which is not capable of being reversed. "Irretrievable" means not replaceable or recoverable.

TABLE 4-6

RELATIONSHIP BETWEEN SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY AND THE IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES

Alternative	Short-Term Use	Long-Term Productivity	Irreversible	Irretrievable
Proposed Action	Optimize the balanced use of resources.	Improvement in range condition and trend. Increased net present worth.	None	None
Current Management	Maintain status quo.	No change in range condition and trend. Slight increase in net present worth.	None	Possible loss of spawning, incubation and rearing habitat of salmonids due to continued livestock grazing on 4.9 miles of stream.
Resource Protection	Maximize wildlife and watershed while maintaining a viable livestock industry.	Improvement in range condition and trend relatively greater than proposed action. Habitat provided for an additional 150 bighorn sheep. Increase in net present worth.	None	None
No Grazing	Allow natural ecological principles to prevail following removal of all livestock.	Improvement in range condition and trend relatively greater than proposed action or resource protection alternative. Increased hunting and fishing opportunities. Decrease in net present worth.	None	Loss in net present worth of $560,000 to the regional economy. Loss of five jobs within the livestock industry.

SOURCE: BLM, Coeur d'Alene District, 1980.

CHAPTER 5

CONSULTATION AND COORDINATION

CHAPTER 5
CONSULTATION AND COORDINATION

PREPARERS

Individuals of the Bureau of Land Management (BLM) directely involved in preparing this Environmental Impact Statement (EIS) are listed in Table 5-1.

COORDINATION PRIOR TO THE EIS PREPARATION

Prior to the preparation of this EIS, the Coeur d'Alene District conducted extensive consultation and coordination with the public during the land use planning process (URA, MFP). These earlier portions of the resource management decision-making process were widely advertised in an effort to reach the affected publics and establish involved and informed public contacts.

As a part of this effort, public planning workshops were held during April and May of 1979, and again in January of 1980. At the April and May workshops, the public was asked to identify significant problems and issues to be addressed during the planning process. During the January 1980 workshops, the BLM discussed and received public comments on the district's tentative management proposals. For the most part, the alternatives including the proposed action of this EIS came directly from the management proposals.

CONSULTATION AND COORDINATION DURING THE PREPARATION OF THE EIS

With the previous public involvement effort as a foundation, the Coeur d'Alene District continued its consultation and coordination during the preparation of this EIS. In April 1980, approximately 850 letters were sent to a wide variety of interest groups, agencies, and individuals. The letter discussed the EIS and the range management proposals and solicited comments, suggestions, and opinions concerning issues to be discussed and analyzed in this EIS. Each BLM grazing lessee in the EIS area was sent a description of the proposed action alternative and other alternatives for their specific allotment and was requested to submit comments concerning them. In addition, news releases were issued asking anyone with information pertinent to the EIS to contact the BLM. A meeting was held in October of 1980 with the District Advisory Council at which time the district's proposed grazing program was reviewed.

Due to the nature of the grazing program, early consultation was initiated with representatives of U.S. Fish and Wildlife Service, Soil Conservation Service and State Historic Preservation Officer. The early involvement of these critical agencies allowed us to avoid possible conflicts or controversy and to provide for coordinated program development.

The public as well as BLM employees have been encouraged to continue ongoing communication concerning this EIS throughout its development. A complete record of public involvement activities, correspondence, and results is located in the Public Participation Plan Record Document on file at the Cottonwood Resource Area Office.

COORDINATION IN THE REVIEW OF THE EIS

The BLM will request comments on the EIS from the agencies and interest groups listed in Table 5-2. A complete list of individuals, groups, and agencies who will receive copies of the EIS is located on the EIS mailing list at the Cottonwood Resouce Area Office.

TABLE 5-1
LIST OF PREPARERS

Name	EIS Responsibility	Education	Experience
Dick Todd	Team Leader	B. S. Forest Resources	3 years BLM, Forester/Area Environmental Coordinator
Tom Rinkes	Technical Coordinator/ Range Management	B. S. Wildlife Biology	2 years BLM, Range Conservationist
Jackie Ripley	Office Manager	Voc. Tech./Office Management	6 years BLM, Area Clerk
Kris Long	Writer-Editor	B. A. Journalistic Communications	2 years BLM, Public Affairs; 2 years BLM, Writer-Editor
Leah Adams	Cartographics	1 Year Undergraduate Work	2 years BLM, Cartographic Technician
Carla Wood	Typist	Voc. Tech./Accounting	2 years BLM, Clerk-Typist
Joyce Ingram	Typist	Voc. Tech./Legal Secretarial	1 year BLM, YACC Typist
Gary Wright	Vegetation	B. S. Wildlife	1 1/2 years BLM, Range Conservationist
Craig Johnson	Wildlife/Fisheries	B. S. Wildlife Management Range Management Graduate Work	2 years BLM, Area Biologist; 5 years BLM, Range Conservationist; 1 year FS, Range Technician
Vern Webb	Soils	B. S. Agriculture (Soil Science)	13 1/2 years BLM, Soil Scientist; 14 years SCS, Soil Scientist
David Fortier	Water Resources	M. S. Civil Engineering (Water Resource Planning); B. S. Civil Engineering	1 1/2 years BLM, Hydrologist; 1 year Ada/Canyon 208 Area-wide Planning Group; 4 years postgraduate water resources work at the University of Idaho; Research Associate
David Sisson	Cultural Resources	B. S. Anthropology	2 years BLM, Archeologist
LuVerne Grussing	Recreation and Visual Resources	M. Ed. Recreation and Park Administration; B. A. Recreation	2 years BLM, Outdoor Recreation Planner

TABLE 5-1 (Cont.)

LIST OF PREPARERS

Name	EIS Responsibility	Education	Experience
Scott Forssell	Roadless/Wilderness Resources	M. S. Natural Resource Administration; B. S. Park Administration	4 1/2 years BLM, Outdoor Recreation Planner
Paul Card	Social Factors	Baccalaurete in Sociology and Math	1 1/2 years BLM, Sociologist; 2 years Executive Officer of the Governor (Idaho); 5 years Idaho Dept. of Transportation
Stan Frazier	Economic Factors	B. S. Agricultural Economics	5 1/2 years BLM, Economist
Gary Wyke	BLM State Office Review and Coordination	B. S. Forestry; M. S. Wildland Resources Science	1 year BLM, Environmental Coordinator; 6 years BLM, Range Conservationist

TABLE 5-2

AGENCIES AND INTEREST GROUPS AND INDIVIDUALS WHO WILL RECEIVE COPIES OF THE EIS

FEDERAL AGENCIES

- Department of Agriculture
  - Forest Service
  - Soil Conservation Service
- Department of the Interior
  - Bonneville Power Administration
  - Bureau of Indian Affairs
  - National Park Service
  - U. S. Fish and Wildlife Service
  - Natural Resources Library
- Environmental Protection Agency

ELECTED OFFICIALS, FEDERAL

- Senator James McClure
- Senator Steve Symms
- Representative Larry Craig

ELECTED OFFICIALS, STATE

- Governor John V. Evans
- Senator Ron Bietlespacker

STATE AGENCIES

- Idaho State Clearing House
- Idaho Department of Public Lands
- Idaho Department of Fish and Game
- State Historic Preservation Officer
- Clearwater Economic Development Association
- Office of the Attorney General
- Idaho Department of Health and Welfare

LOCAL GOVERNMENT

- Adams County Commissioners
- Benewah County Commissioners
- Bonner County Commissioners
- Boundary County Commissioners
- Clearwater County Commissioners
- Idaho County Commissioners
- Kootenai County Commissioners
- Latah County Commissioners
- Lewis County Commissioners
- Nez Perce County Commissioners
- County Extension Agents
- County Planning Commissioners
- Nez Perce Tribal Executive Council

TABLE 5-2 (Cont.)

AGENCIES AND INTEREST GROUPS AND INDIVIDUALS
WHO WILL RECEIVE COPIES OF THE EIS

OTHER ORGANIZATIONS

BLM Coeur d'Alene District Advisory Council Members
National Advisory Council on Historic Preservation
Idaho Forest Industries Council
Society of American Foresters
Inland Forest Resource Council
Idaho Wildlife Federation
Palouse Audubon Society
Lewis-Clark Wildlife Club
The Idaho Chapter of the Wildlife Society
Natural Resources Defence Council
Kootenai Environmental Alliance
Sierra Club
The Nature Conservancy
Idaho Conservation League
Idaho Outfitters and Guides License Board
Elk Unlimited
Idaho State Historical Society
Idaho Archeological Society
Clearwater County Historical Society
Executive Director, Advisory Council on Historic Preservation
Idaho County Historical Society
Pacific Northwest Indian Center
The Wilderness Society
Governor's Wilderness Advisory Committee
Idaho State Grange
Idaho County Cattlement
Idaho Cattlemen's Association
North Idaho Chamber of Commerce
Greater Snake River Land Use Congress
Idaho Association of Soil Conservation Districts
Potlatch Corporation
Shearer Lumber Products, Inc.
Wickes Forest Industries
Society of Range Management
Tri County Natural Resource Commission
North Idaho Forestry Association
Nez Perce Tribal Planning Division
Latah Museum Society
Idaho Mining Association
Burlington Northern
Cory Lumber Company
Evergreen Forest Products Inc.
Northwest Pine Association
Ownbey Lumber Company
Citizens Alliance

TABLE 5-2 (Cont.)

AGENCIES AND INTEREST GROUPS AND INDIVIDUALS
WHO WILL RECEIVE COPIES OF THE EIS

Friends of the Earth
Idaho Horse Council
Wild Horse Organization Assistance Inc.
Social Sciences Library, University of Idaho
Idaho Environmental Council

INDIVIDUALS

Dr. Lee Sharp
Ruthann Knudson
Dr. Minn Hironoka
Gene Eastman
Claude Sampson
Grant Harris
Tere Lee Gilles
Bill Mulligan
Fred Christenson
Dennis Baird
Eugene Blackhurst
Mr. and Mrs. Boyd
Morton Brigham
Bill Burnett
David John Chamberlain
Don Chapman
Roger Dudley
Charles Gehring
Dalina Gill
Dick Helfrich
Donald R. Jerri
Donald D. Jones
Ken Kolar
Lester Larsen
Dennis Lightfield
Mike Lunn
Don McKinsey
Jim Newell
Lillian Pethtel
W. J. Snow
Jim Walker
David Hallock
All grazing operators that would be
affected by the BLM action (160 operators).

Copies of this EIS are available for public inspection at the following locations:

Bureau of Land Management
Washington Office of Public Affairs
18th and C Street, N. W.
Washington D. C. 20240
Phone: (202) 343-4151

Bureau of Land Management
Idaho State Office
550 West Fort Street
Boise, Idaho 83724
Phone: (208) 334-1770

Bureau of Land Management
Coeur d'Alene District Office
P. O. Box 1889
Coeur d'Alene, Idaho 83814
Phone: (208) 667-2561, ext. 356

Bureau of Land Management
Cottonwood Area Office
Route 3, Box 181
Cottonwood, Idaho 83522
Phone: (208) 962-3245

APPENDIX

APPENDIX 2-1

DETERMINATION OF FORAGE ALLOCATION FOR WILDLIFE AND LIVESTOCK

The majority of the leased public lands are fragmented and intermingled with private lands within the EIS area. Grazing use of public lands is primarily used in conjunction with private lands which often make up the majority of an allotment area. To assess if past livestock grazing was at a proper level, an evaluation of current range condition and apparent trend was done. Based on condition and apparent trend, forage allocation proposals were made for each allotment. See Appendix 2-1, Table A for proposed livestock and wildlife forage allocation for each allotment.

Livestock use will continue as presently authorized on allotments that meet the following criteria:

1. Over 80 percent of the leased public lands (grasslands) are in high-fair (vegetation composition consisting of 40 percent or greater of potential climax vegetation) or above range condition.

2. Apparent trend is stable or upwards on over 90 percent of the leased public lands within an allotment.

3. Forest habitat types have a vegetation composition composed of 10 percent or less of noxious and/or undesirable invading plants.

Current authorized use is presently resulting in an achievement of maintenance and/or improvement of range condition and trend on the allotments that meet the above criteria. Also, a high-fair or above range condition indicates past acceptable proper use. A large percentage of the leased public lands in the EIS area are on steep slopes in excess of 50 percent; consequently, moderately sloping areas will be used first and heaviest under any stocking rate or grazing treatment. Therefore, it can be expected that a low percentage (0-20 percent) of each allotment could have a fair or lower range condition, even under proper range management and stocking levels.

Livestock use will be adjusted to the grazing capacity of the allotment as determined by occular and weight estimate surveys with suitability deductions on allotments which meet one or more of the following criteria:

1. Over 20 percent of the leased public lands (grasslands) is in midfair (39 percent of potential climax vegetation) or lower range condition.

2. Apparent trend is downward on more than 10 percent of the allotment.

3. Forest habitat types have 11 percent or more of the vegetative composition made up of undesirable increasers and/or noxious weeds.

Refer to Appendix 2-5 for a discussion of range condition and trend, and Appendix 2-2 for a discussion of rangeland suitability.

Where future studies, inventories, or actual use data indicate that over utilization or under utilization is taking place, adjustments will be initiated in livestock use so as to result in proper stocking rates. As other resource values or conflicts become known, an adjustment in livestock grazing capacity may be necessary. Refer to Monitoring Programs section of Chapter 2 for a discussion of proposed monitoring.

Habitat conditions and forage will be maintained and/or improved for elk, mule deer, moose, and white-tailed deer on all public lands that are grazed by livestock. In those allotments where wildlife and livestock compete for forage, an allocation will be made for wildlife forage and authorized livestock use will be reduced accordingly. Habitat quality will be maintained and/or improved for all other wildlife by authorizing forage for livestock consistent with proper use of key forage species.

Where no significant conflict for forage has been identified, livestock use will continue as presently authorized. Significant conflicts for forage is minimal where proper stocking rates and utilization is taking place. Good range condition along with upward or stable trend depicts proper stocking rates. However, if future studies indicate that conflicts between livestock and wildlife exist under present stocking levels, adjustments in livestock use will be initiated to eliminate the conflict. On allotments in low fair or lower range condition, identified big game ungulate competitive forage needs is proposed to be deducted from available livestock forage because of the potential for significant conflicts. Diet similiarity was determined from analysis of fecal material, a review of literature, and consultation with Idaho Fish and Game (IDFG). Big game use areas and numbers was determined from herd estimates by IDFG and aerial surveys conducted by the BLM and IDFG. Because of the fragmented land pattern of public lands, small allotment sizes, yearlong use areas, and seasonal fluctuations in numbers, competitive forage was determined on a yearlong basis. Average yearlong big game diet similiarities in the EIS area with cattle is as follows:

Elk	65 percent
Mule Deer	33 percent
White-Tailed Deer	20 percent
Moose	30 percent

Average yearlong big game diet similiarities with sheep is as follows:

Elk	40 percent
Mule Deer	40 percent
White-Tailed Deer	20 percent
Moose	30 percent

Determination of AUMs and Animal Equivalents

One animal unit month (AUM) is equal to 800 pounds of air dry forage. The following grazing animal equivalents were used to determine AUMs for various animals:

Animal	No. of Animals one AUM will support	Pounds of Forage Consumed Per Month (30 Day Period)
Cattle	1	800
Horse	.8	1000
Sheep (domestic)	4.9	162
Mule Deer	5.3	150
White-Tailed Deer	7.3	110
Elk	2.0	400
Moose	1.3	600
Bighorn Sheep	6.8	118

Forage Allocation For Wildlife

Total available forage (AUMs) was computed for each allotment. Uniform distribution of big game ungulates within each seasonal use area for big game was assumed. Forage needs for existing and planned-for big game ungulates were calculated. To compute forage use for big game the following seasonal use periods are used:

Spring - 3.0 months (3/15 - 6/15)
Summer - 3.0 months (6/16 - 6/15)
Fall - 2.0 months (9/16 - 11/15)
Winter - 4.0 months (11/16 - 3/14)

For example, if a seasonal use area (1,000 acres of public lands) was determined to have density of one mule deer per 300 acres for spring, summer, and fall; the use months for mule deer would be determined as follows:

$$1{,}000 \text{ acres} \times \frac{1 \text{ mule deer}}{300 \text{ acres}} = 3.3 \text{ mule deer}$$

$$3.3 \text{ mule deer} \times 8 \text{ months (spring, summer, and fall)} = 26.4 \text{ mule deer months}$$

Mule deer use months for winter for 1,000 acres of leased public lands are determined as follows:

$$1{,}000 \text{ acres} \times \frac{1 \text{ mule deer}}{100 \text{ acres}} = 10 \text{ mule deer}$$

$$10 \text{ mule deer} \times 4 \text{ months (winter)} = 40 \text{ mule deer months}$$

Year-round diet similarity between cattle and mule deer is 33 percent.

$$66.4 \text{ deer months} \times \frac{150 \text{ lbs. deer forage}}{1 \text{ deer month}} = 9{,}960 \text{ lbs. deer forage}$$

$$9{,}960 \text{ lbs. deer forage} \times \frac{33 \text{ lbs. livestock forage}}{100 \text{ lbs. deer forage}} = 3{,}286.6 \text{ lbs. livestock forage}$$

$$3{,}286.6 \text{ lbs. livestock forage} \times \frac{1 \text{ competitive livestock AUM}}{800 \text{ lbs. livestock forage}} = 4.1 \text{ competitive livestock AUMs}$$

Based on the above calculations 4 AUMs of competitive forage would be allocated to mule deer. If the fractional competive forage is .51 or larger it would be computed to the higher number. For example 4.51 AUMs would be tabulated as 5 AUMs and 4.10 AUMs would be tabulated as 4 AUMs.

APPENDIX 2-1, TABLE A

PROPOSED FORAGE ALLOCATION FOR LIVESTOCK AND WILDLIFE (AUMs) 1/

Intensively Managed Allotments	Livestock	Wildlife In Competition with Livestock 2/			Wildlife Not In Competition with Livestock 3/		
		Mule Deer	White-tailed Deer	Elk	Mule Deer	White-tailed Deer	Elk
6129	41	4	*	1	--	--	--
6152	55	--	--	--	1	*	*
6195	597	--	--	--	23	2	14
6206	34	2	1	*	--	--	--
6233	59	--	--	--	3	4	16
6240	459	--	--	--	42	*	43
6241	226	--	--	--	3	*	4
6247	76	4	*	4	--	--	--
6260	135	--	--	--	5	8	3
6261	45	--	--	--	1	1	3
6279	809	--	--	--	29	2	24
6281	179	--	--	--	5	1	7
6284	166	--	--	--	3	0	5
6289	135	--	--	--	11	3	40
6293	53	--	--	--	4	0	0
Subtotal	3,069	10	1	5	130	21	159

Less Intensively Managed Allotments	Livestock	Wildlife In Competition with Livestock 2/			Wildlife Not In Competition with Livestock 3/		
		Mule Deer	White-tailed Deer	Elk	Mule Deer	White-tailed	Elk
6000	8	--	--	--	1	*	2
6002	148	--	--	--	5	2	4
6003	24	1	1	0	--	--	--
6006	11	--	--	--	1	1	2
6007	22	2	*	0	--	--	--
6009	101	--	--	--	2	2	0
6010	19	--	--	--	3	1	36
6011	18	--	--	--	2	*	9
6012	6	--	--	--	0	*	0

APPENDIX 2-1, TABLE A (Cont.)

Less Intensively		Wildlife In Competition with Livestock 2/			Wildlife Not In Competition with Livestock 3/		
Managed Allotments	Livestock	Mule Deer	White-tailed Deer	Elk	Mule Deer	White-tailed	Elk
6013	27	--	--	--	1	*	6
6014	3	--	--	--	1	*	2
6016	40	--	--	--	9	10	94
6019	76	--	--	--	15	17	37
6100	16	1	1	*	--	--	--
6101	10	1	*	*	--	--	--
6102	2	*	*	*	--	--	--
6104	9	1	*	*	--	--	--
6105	72	--	--	--	6	1	2
6106	64	--	--	--	2	1	*
6107	25	--	--	--	2	1	1
6109	3	--	--	--	*	*	*
6110	77	--	--	--	4	2	21
6112	6	1	*	2	--	--	--
6113	9	--	--	--	*	0	0
6115	1	*	*	0	--	--	--
6116	13	2	*	*	--	--	--
6117	6	--	--	--	*	*	*
6118	42	--	--	--	1	*	1
6119	7	1	0	*	--	--	--
6120	20	--	--	--	*	*	*
6122	10	--	--	--	1	*	*
6123	15	2	*	1	--	--	--
6124	7	1	1	*	--	--	--
6125	5	--	--	--	*	*	*
6127	2	--	--	--	*	*	*
6128	2	--	--	--	*	*	*
6130	14	1	*	1	--	--	--
6132	24	--	--	--	*	*	*
6133	4	--	--	--	*	*	*
6134	49	--	--	--	2	*	1
6135	22	--	--	--	2	*	1
6137	110	--	--	--	4	1	2
6138	32	1	0	0	--	--	--
6139	7	1	*	*	--	--	--

APPENDIX 2-1, TABLE A (Cont.)

Less Intensively Managed Allotments	Livestock	Wildlife In Competition with Livestock 2/			Wildlife Not In Competition with Livestock 3/		
		Mule Deer	White-tailed Deer	Elk	Mule Deer	White-tailed	Elk
6141	10	--	--	--	1	*	*
6142	5	--	--	--	*	*	*
6143	10	--	--	--	1	1	2
6144	105	--	--	--	3	*	*
6145	9	--	--	--	1	*	1
6146	42	--	--	--	1	1	3
6147	14	--	--	--	1	0	0
6148	8	--	--	--	1	*	*
6149	7	--	--	--	*	*	*
6150	3	--	--	--	*	*	0
6151	20	1	1	2	--	--	--
6153	6	--	--	--	*	*	*
6154	4	--	--	--	*	*	*
6155	7	1	1	1	--	--	--
6156	14	1	0	0	--	--	--
6157	12	--	--	--	1	*	1
6158	29	--	--	--	2	*	1
6159	3	--	--	--	*	*	*
6160	16	--	--	--	*	*	1
6161	31	--	--	--	2	0	0
6163	8	1	1	1	--	--	--
6165	8	--	--	--	*	*	1
6167	34	--	--	--	3	1	1
6168	23	--	--	--	1	1	1
6169	3	*	*	*	--	--	--
6171	11	--	--	--	*	*	*
6173	15	--	--	--	*	*	1
6174	26	--	--	--	1	1	1
6175	2	--	--	--	*	*	*
6177	12	--	--	--	1	0	0
6180	2	--	--	--	*	*	*
6182	14	1	0	0	--	--	--
6183	15	--	--	--	*	0	0
6184	79	--	--	--	3	*	1
6185	11	--	--	--	*	*	*
6186	6	--	--	--	*	*	0

APPENDIX 2-1, TABLE A (Cont.)

Less Intensively Managed Allotments	Livestock	Wildlife In Competition with Livestock 2/ Mule Deer	White-tailed Deer	Elk	Wildlife Not In Competition with Livestock 3/ Mule Deer	White-tailed	Elk
6187	25	--	--	--	1	1	*
6189	2	--	--	--	*	*	*
6190	1	*	*	*	--	--	--
6191	23	--	--	--	1	0	0
6193	13	--	--	--	1	*	*
6196	44	--	--	--	2	*	1
6197	5	1	*	1	--	--	--
6198	93	--	--	--	3	1	2
6200	27	--	--	--	1	0	0
6201	6	--	--	--	1	*	*
6203	166	--	--	--	15	1	4
6204	8	--	--	--	*	*	*
6205	3	--	--	--	*	*	*
6207	3	*	*	*	--	--	--
6208	5	*	0	0	--	--	--
6209	11	*	*	*	--	--	--
6210	7	--	--	--	*	*	*
6211	10	--	--	--	*	*	*
6212	18	--	--	--	*	*	1
6213	2	--	--	--	*	*	*
6214(a)	23	--	--	--	2	1	2
6214(b)	15	--	--	--	1	*	*
6216	10	--	--	--	*	*	*
6218	3	--	--	--	*	*	*
6220	3	1	*	*	--	--	--
6221	3	1	*	*	--	--	--
6222	5	1	*	*	--	--	--
6223	1	*	*	*	--	--	--
6224	24	--	--	--	2	1	1
6225	7	*	*	*	--	--	--
6226	2	*	0	0	--	--	--
6227	4	*	*	*	--	--	--
6228	3	*	0	0	--	--	--
6229	18	--	--	--	1	*	*
6231	6	*	0	0	--	--	--
6234	20	--	--	--	*	*	2

APPENDIX 2-1, TABLE A (Cont.)

Less Intensively Managed Allotments	Livestock	Wildlife In Competition with Livestock 2/			Wildlife Not In Competition with Livestock 3/		
		Mule Deer	White-tailed Deer	Elk	Mule Deer	White-tailed	Elk
6235	9	1	*	1	--	--	--
6236	14	1	*	0	--	--	--
6237	9	--	--	--	*	0	0
6242	218	--	--	--	8	*	7
6243	4	1	*	*	--	--	--
6244	25	--	--	--	1	*	*
6245	85	--	--	--	1	*	3
6246	78	--	--	--	2	*	2
6251	6	--	--	--	*	*	*
6252	16	1	0	0	--	--	--
6253	14	--	--	--	1	*	*
6255	118	--	--	--	7	0	8
6256	103	--	--	--	2	*	2
6257	37	--	--	--	1	0	0
6258	2	--	--	--	*	*	0
6259	10	--	--	--	*	*	0
6262	9	--	--	--	*	*	*
6263	2	--	--	--	*	*	*
6264	49	--	--	--	3	*	1
6265	18	--	--	--	1	0	0
6266	101	--	--	--	4	0	0
6267	2	--	--	--	*	*	*
6268	9	*	1	*	--	--	--
6270	6	1	*	*	--	--	--
6271	41	--	--	--	2	1	1
6273	40	--	--	--	2	0	0
6276	6	--	--	--	*	*	*
6277	1	--	--	--	*	*	0
6278	5	--	--	--	*	*	0
6280	22	--	--	--	1	0	0
6282	37	1	0	0	--	--	--
6283	3	--	--	--	*	*	*
6285	5	1	*	*	--	--	--
6286	2	*	*	*	--	--	--
6287	3	*	*	*	--	--	--
6288	2	*	*	*	--	--	--

APPENDIX 2-1, TABLE A (Cont.)

Less Intensively Managed Allotments	Livestock	Wildlife In Competition with Livestock 2/			Wildlife Not In Competition with Livestock 3/		
		Mule Deer	White-tailed Deer	Elk	Mule Deer	White-tailed	Elk
6290	12	--	--	--	3	*	2
6291	63	--	--	--	3	*	*
6292	5	*	0	0	--	--	--
6294	10	--	--	--	*	*	*
6295	3	--	--	--	*	*	*
Subtotal	3,635	32	7	10	304	50	275
Total	6,704	42	8	15	434	71	434

1/ All figures are expressed in terms of competitive livestock AUMs. See Appendix 2-4 for determination of forage allocation for wildlife and livestock.

2/ Allotment is in low fair or poor condition. Competition for forage occurs between livestock and wildlife. The proposed forage allocation for livestock represents a reduction in existing livestock forage allocations.

3/ Allotment is in high fair or better range condition. No significant competition for forage occurs between livestock and wildlife because they are separated by space, time, and dietary preference with the existing level of livestock use. No reductions in existing forage allocations to livestock are proposed.

* Indicates wildlife use, but such use is less than .5 competitive AUM.

SOURCE: BLM, Coeur d'Alene District, 1981.

APPENDIX 2-2

RANGE SUITABILITY FOR LIVESTOCK GRAZING

Allocation of forage for livestock on unsuitable range may result in overgrazing of the more suitable areas. Washington Office Instruction Memorandum Number 78-590 discusses a concept for classification of rangelands as to their suitability for livestock grazing. This classification considers the capability of forage producing lands to be grazed on a sustained yield basis without damage to the basic resources of the immediate or adjacent area. Suitable range should not be confused with "usable" range. Many areas can be grazed by livestock but may not be suitable for grazing on a long-term basis because of the resulting damage to the area or adjacent areas.

Range suitability standards were developed by the Denver Service Center (DSC). These standards were derived from analysis of various research reports on the subject. Flexibility in values to be used was allowed based on local situations, provided such changes could be supported with good rationale.

Bureau of Land Management suitability guidelines recommend that slopes in excess of 50 percent not be classified as suitable for livestock grazing. However, documented livestock grazing in the EIS area occurs on slopes in excess of 50 percent without significantly damaging the resources. The grazing of steep slopes is primarily associated with the Salmon-Snake River Canyons. The following factors describe the present situation in regard to livestock grazing on steep slopes in the Coeur d'Alene District:

1. The average slope of grazed grasslands is 50 percent; however, the majority (60 percent to 85 percent) of grazing occurs on slopes below 50 percent.

2. Livestock graze steep slopes by utilizing contour trails that have a gradient less than 30 percent. Patton (1971) found in his study on the Sawtooth National Forest in Idaho that level contour trails allowed cattle to graze steep slopes at distances up to one mile from water. The major factors identified by Patton (1971) that affect livestock utilization of steep slopes are listed in descending order: 1) percent slope at site, 2) distance from water to site along contour trails, 3) distance from water to site, 4) and distance from salt to site. It is the opinion of district personnel that similar conditions affect livestock utilization of steep slopes found in the northern Idaho EIS area.

3. Livestock graze and move across the slopes rather than go up or down the slope.

4. Key areas for livestock within the canyons may be upslope on benches and ridges. Consequently, livestock may efficiently utilize the rangeland from the bottom, top, and midslope. These moderate sloped areas (benches and ridges) are in close proximity to steep slopes.

5. There is a large percentage of steep sloped rangeland in relation to moderate sloped areas. Consequently, the moderate sloped areas will be utilized first and heaviest under any stocking level. From March 20, 1980 to May 15, 1980 a total of 825 cattle were observed and documented as to what percent slope they were on and what their activity was. An observed activity of feeding was noted for 413 head of cattle, and 412 head of cattle had an observed activity of loafing, laying down, watering, or shaded-up. Approximately 39 percent (162 head) of the cattle that had an observed activity of feeding were noted on slopes in excess of 50 percent, and 61 percent (251 head) were utilizing slopes below 50 percent. Approximately 96 percent (396 head) of the cattle that had an observed activity

of loafing, laying down, watering, or shaded-up were noted on slopes below 50 percent, and 4 percent (16 head) were utilizing slopes above 50 percent.

6. Sheep use of slopes over 50 percent is common. Such use with proper stocking rates has maintained the range in high, fair, or better condition because sheep are adapted to using steep slopes. The "broadcast" method of sheep grazing is used when grazing steep slopes. Sheep are not "close herded" or in "tight" bands when grazing the steep slopes of the canyons but are turned out to graze at will with no herder, consequently reducing adverse impacts from concentrated use.

7. The steep sloped areas are well vegetated and usually have a stable soil erosion condition. Slopes above 50 percent slope usually have a good or excellent range condition. It is estimated that over 80 percent of the rangelands with slopes above 50 percent are in good or excellent condition.

8. The canyon areas are grazed during the fall, winter, and spring. Grazing during dormancy has a minimal affect on vegetation with proper stocking levels. During the spring the canyons have an elevational green-up, which influences livestock utilization. It has been noted that the first areas to green-up are benches, ridges, and moderate sloped areas. This green-up helps to improve livestock utilization of the area when early green-up areas occur upslope.

9. Cattle raised on the Salmon and Snake river country become accustomed to grazing steep country. They utilize steep slopes effeciently. Cook (1967) identified animal psychology as responsible for the intensity of the cattle use of steep slopes. The grazing capacity of steep sloped topography can be determined only on the basis of actual use under correct management (Cook 1967). Under proper stocking rates cattle use of steep slopes has maintained the range in high, fair, or higher condition.

10. Contour trails which are utilized by livestock also appear to reduce the surface runoff on steep slopes.

11. The steep canyon slopes grazed by livestock are usually well watered during the season of use (spring, fall, and winter) which reduces the need for livestock to trail long distances. Water may occur in upslope areas, consequently reducing the need for livestock to return to the river or bottom.

Following are the proposed modifications to the suitability guidelines that will be used in the EIS area:

1. Thirty percent of palatable and properly usable forage (AUMs) will be alloted to horses and cattle, and 60 percent will be alloted to sheep on ranges in fair or better condition with slopes from 51 percent to 80 percent. On ranges that are used in common by cattle and sheep, 50 percent of the available forage will be allocated. This allocation methodology will result in approximately 75 to 90 percent of the annual production being left for wildlife, litter accumulation, and watershed values. (Note: this allocation methodology does not significantly change the

present stocking rate on steep slopes, and these slopes are now being maintained in good or excellent condition over an estimated 80% of the area.)

2. All slopes above 80 percent are classified as unsuitable.

3. Use of slopes over 50 percent that are in poor range condition will be discouraged through reduced stocking levels, salting , riding, and other management measures.

4. Range suitability is determined by distance from water as follows:

Percent Slope From Water	Distance Upslope (Miles)
0 - 30	1.5
31 - 50	.6
51 - 80	.4

5. Areas with a soil surface factor over 40 with slopes above 50 percent are clasified as unsuitable for livestock grazing.

In timbered areas there is a correlation between overstory canopy cover and forage production. Various studies conducted in northern Idaho support this concept (Froeming 1974 and Burton 1978). The Soil Conservation Service has developed grazing guides for forest types and has classified timbered areas with over 60 percent canopy cover as unsuitable for grazing. Following are the proposed modifications to the suitability guidelines that will be used in the EIS area for timbered areas.

1. Areas that have a timber canopy cover of over 60 percent are classified unsuitable for livestock grazing and no forage will be allocated to livestock.

2. Timbered areas (40 percent canopy cover) with slopes over 50 percent are classified unsuitable for livestock grazing and no forage will be allocated to livestock. Livestock have difficulty moving through brush and downfall on steep slopes.

APPENDIX 2-3, TABLE A
GRAZING MANAGEMENT ALTERNATIVES BY ALLOTMENT

	Intensity of Management		Allotment Acres		Grazing Treatments 2/			Season Of Use			Kind	Level of Livestock Use			Percent Change from Current Management	
Allotment Number	Proposed Action	(Alt. 2) Resource Protection	Proposed Action 1/	(Alt. 2) Resource Protection	(Alt. 1) Current Management	Proposed Action	(Alt. 2) Resource Protection	(Alt. 1) Current Management	Proposed Action	(Alt. 2) Resource Protection	of Stock 3/	(Alt. 1) Current Management	(AUMs) Proposed Action	(Alt. 2) Resource Protection	(Alt. 1) Proposed Action	(Alt. 2) Resource Protection
6000	Non	Non	87	87	C	C	C	06/15-10/01	06/15-10/01	06/15-10/01	C	4	4	4	0	0
					C	C	C	06/15-10/01	06/15-10/01	06/15-10/01	H	4	4	4	0	0
6002	Non	Non	884	884	C	C	C	06/01-10/31	06/01-10/31	06/01-10/31	C	148	148	148	0	0
6003	Non	Non	240	240	C	C	C	06/01-10/31	06/01-10/31	06/01-10/31	C	44	24	24	-45	-45
6006	Non	Non	160	160	C	C	C	05/15-09/30	05/15-09/30	05/15-09/30	C	11	11	11	0	0
6007	Non	Non	360	360	C	C	C	05/01-09/15	05/01-09/15	05/01-09/15	C	66	22	22	-67	-67
6009	Non	Non	655	655	C	C	C	06/15-09/15	06/15-09/15	06/15-09/15	C	101	101	101	0	0
6010	Non	Non	905	905	C	C	C	06/15-09/30	06/15-09/30	06/15-09/30	C	19	19	19	0	0
6011	Non	Non	700	700	C	C	C	06/01-09/30	06/01-09/30	06/01-09/30	C	18	18	18	0	0
6012	Non	Non	40	40	C	C	C	05/01-10/15	05/01-10/15	05/01-10/15	C	6	6	6	0	0
6013	Non	Non	173	173	C	C	C	05/01-12/31	05/01-12/31	05/01-12/31	C	14	14	14	0	0
							C	05/01-12/31	05/01-12/31	05/01-12/31	H	13	13	13	0	0
6014	Non	Non	125	125	C	C	C	04/15-10/31	04/15-10/31	04/15-10/31	H	3	3	3	0	0
6016	Non	Non	2880	2880	C	C	C	07/01-10/31	07/01-10/31	07/01-10/31	H	40	40	40	0	0
6019	Non	Non	4600	4600	C	C	C	06/15-10/01	06/15-10/01	06/15-10/01	C	76	76	76	0	0
6100	Non	Non	560	560	C	C	C	04/15-06/01	04/15-06/01	05/01-06/15	C	60	16	16	-73	-73
6101	Non	Non	160	160	C	C	C	05/15-06/15	05/15-06/15	05/15-06/15	C	10	10	10	0	0
6102	Non	Non	40	40	C	C	C	04/15-12/01	04/15-12/01	05/01-12/01	C	4	2	2	-50	-50
6104	Non	Non	121	121	C	C	C	04/15-09/15	04/15-09/15	05/01-10/01	C	9	9	9	0	0
6105	Non	Non	1261	1261	C	C	C	04/01-01/01	04/01-06/15	04/15-06/15	C	72	8	8	0	0
								. . . .	06/16-10/15	06/16-10/15		0	54	54	-	-
								. . . .	10/16-01/01	10/16-01/01		0	10	10	-	-
6106	Non	Non	790	790	C	C	C	05/15-05/31	05/15-05/31	05/15-05/31	C	32	32	32	0	0
								11/01-11/15	11/01-11/15	11/01-11/15		32	32	32	0	-
6107	Non	Non	495	495	C	C	C	04/01-11/01	04/15-11/01	05/01-11/01	C	25	25	25	0	0
6109	Non	Non	41	41	C	C	C	04/01-11/01	04/15-11/01	04/15-11/01	C	3	3	3	0	0
6110	Non	Non	1280	1280	C	C	C	06/01-09/01	05/01-06/01	05/01-06/01	C	77	38	38	0	0
								. . . .	10/01-11/15	10/01-11/15		0	39	39	-	-
6112	Non	Non	475	475	C	C	C	03/01-02/28	04/01-06/15	04/15-06/15	C	30	3	3	-80	-80
								. . . .	11/01-01/01	11/01-01/01		0	3	3	-	-
6113	Non	Non	98	98	C	C	C	05/01-10/31	05/01-10/31	05/01-10/31	C	9	5	5	0	0
					C	C	C	05/01-10/31	05/01-10/31	05/01-10/31	H	0	4	4	-	-
6115	Non	Non	28	28	C	C	C	04/15-07/15	04/15-06/15	05/01-06/15	C	2	1	1	-50	-50
6116	Non	Non	704	704	C	C	C	12/01-03/31	04/01-06/15	04/15-06/15	C	70	3	3	-81	-81
								. . . .	11/01-01/01	11/01-01/01		0	10	10	-	-
6117	Non	Non	120	120	C	C	C	06/01-10/15	06/01-10/15	06/01-10/15	C	6	6	6	0	0
6118	Non	Non	406	406	C	C	C	11/01-06/01	04/01-06/01	04/15-06/15	C	42	20	20	0	0
								. . . .	11/01-02/15	11/01-01/01		0	22	22	-	-
6119	Non	Non	217	217	C	C	C	11/01-05/15	04/01-05/15	04/15-06/15	C	21	3	3	-66	-66
								. . . .	11/01-01/01	11/01-01/01		0	4	4	-	-
6120	Non	Non	120	120	C	C	C	04/15-12/01	04/15-12/01	05/01-12/01	C	20	20	20	0	0
6122	Non	Non	200	200	C	C	C	04/01-12/01	04/15-12/01	05/01-12/01	C	10	10	10	0	0
6123	Non	Non	666	666	C	C	C	04/15-09/15	04/15-09/15	04/15-09/15	C	13	12	12	-8	-8
					C	C	C	04/15-09/15	04/15-09/15	04/15-09/15	H	4	3	3	-25	-25
6124	Non	Non	240	240	C	C	C	04/15-06/15	04/15-06/15	04/15-06/15	C	6	5	5	-17	-17
								10/15-11/15	10/15-11/15	10/15-11/15		6	2	2	-66	-66
6125	Non	Non	80	80	C	C	C	05/01-10/31	05/01-10/31	05/01-10/31	C	5	5	5	0	0

APPENDIX 2-3, TABLE A (Cont.)
GRAZING MANAGEMENT ALTERNATIVES BY ALLOTMENT

	Intensity of Management		Allotment Acres		Grazing Treatments 2/			Season Of Use				Level of Livestock Use			Percent Change from Current Management	
Allot-ment Number	Proposed Action	(Alt. 2) Resource Protection	Proposed Action 1/	(Alt. 2) Resource Protection	(Alt. 1) Current Management	Proposed Action	(Alt. 2) Resource Protection	(Alt. 1) Current Management	Proposed Action	(Alt. 2) Resource Protection	Kind of Stock 3/	(Alt. 1) Current Management	(AUMs) Proposed Action	(Alt. 2) Resource Protection	(Alt. 1) Proposed Action	(Alt. 2) Resource Protection
6127	Non	Non	40	40	C	C	C	04/01-07/01	04/15-07/01	04/15-07/01	C	2	2	2	0	0
6128	Non	Non	32	32	C	C	C	04/01-07/01	04/15-07/01	05/01-07/01	C	2	2	2	0	0
6129	AMP	AMP	1179	1179	C	BC	BC	11/01-07/01	11/01-06/15	04/15-06/15	C	72	41	20	-43	-43
								. . . .	. . . .	11/01-01/01				21	-	-
6130	Non	Non	270	270	C	C	C	04/15-11/01	04/15-11/01	04/15-11/01	C	14	14	14	0	0
6132	Non	Non	141	141	C	C	C	04/01-06/01	04/15-06/15	04/15-06/15	C	10	12	12	0	0
								11/01-01/15	11/01-01/01	11/01-01/01		14	12	12	-	-
6133	Non	Non	80	80	C	C	C	05/20-09/20	05/20-09/20	05/20-09/20	C	4	4	4	0	0
6134	Non	Non	647	647	C	C	C	04/01-11/30	04/15-06/15	04/15-06/15	C	49	12	12	0	0
								. . . .	06/16-12/01	06/16-12/01		0	37	37	-	-
6135	Non	Non	644	644	C	C	C	06/01-11/01	06/01-11/01	06/01-11/01	C	22	22	22	0	0
6137	Non	Non	1177	1177	C	C	C	03/01-02/28	01/01-03/31	04/15-06/15	C	110	15	37	0	0
								. . . .	04/01-05/31	06/16-11/01		0	26	43	-	-
								. . . .	06/01-10/31	11/02-01/01		0	43	30	-	-
								. . . .	11/01-12/31	. . . .		0	26	-	-	-
6138	Non	Non	455	455	C	C	C	12/01-06/01	04/01-06/01	04/15-06/15	C	52	21	21	-38	-38
								. . . .	12/01-02/15	12/01-01/01		0	11	11	-	-
6139	Non	Non	139	139	C	C	C	04/01-07/01	04/01-07/01	04/15-07/15	C	4	4	4	0	0
								10/15-12/01	10/15-12/01	10/15-12/01		3	3	3	-	-
6141	Non	Non	185	185	C	C	C	04/15-07/01	04/15-07/01	05/01-07/01	C	5	5	5	0	0
								10/01-12/15	10/01-12/15	10/01-12/15		5	5	5	-	-
6142	Non	Non	43	43	C	C	C	06/01-10/01	06/01-10/01	06/01-10/01	C	5	5	5	0	0
6143	Non	---	92 (192)	---	C	C	-	06/01-07/01	06/01-07/01	. . . .	C	10	10	-	0	-100
6144	Non	Non	937	937	C	C	C	04/01-06/01	04/01-06/01	04/15-06/15	C	52	52	52	0	0
								10/15-12/15	10/15-12/15	10/15-12/15		53	53	53	-	-
6145	Non	Non	240	240	C	C	C	06/01-11/01	06/01-11/01	06/01-11/01	C	9	9	9	0	0
6146	Non	Non	1936	1936	C	C	C	07/01-10/15	07/01-10/15	07/01-10/01	C	42	42	42	0	0
6147	Non	Non	174	174	C	C	C	11/01-06/01	04/01-06/01	04/15-06/15	C	14	7	7	0	0
								. . . .	11/01-01/01	11/01-01/01		0	7	7	-	-
6148	Non	Non	160	160	C	C	C	05/01-07/01	05/01-07/01	05/01-07/01	C	8	8	8	0	0
6149	Non	Non	40	40	C	C	C	06/01-11/01	06/01-11/01	06/01-11/01	C	7	7	7	0	0
6150	Non	Non	58	58	C	C	C	03/15-12/01	04/01-07/01	04/15-06/15	C	3	2	2	0	0
								. . . .	10/15-12/01	10/15-12/01		0	1	1	-	-
6151	Non	Non	399	399	C	C	C	06/01-11/01	06/01-11/01	06/01-11/01	C	20	20	20	0	0
6152	AMP	---	440	---	C	BC	-	04/15-09/01	04/15-10/01	. . . .	C	55	55	-	0	-100
6153	Non	Non	75	75	C	C	C	06/15-09/15	06/15-09/15	06/15-09/15	C	6	6	6	0	0
6154	Non	Non	40	40	C	C	C	10/01-06/01	06/01-11/01	06/01-11/01	C	4	4	4	0	0
6155	Non	Non	760	760	C	C	C	05/01-10/01	05/01-10/01	05/01-10/01	C	38	7	7	-82	-82
6156	Non	Non	265	265	C	C	C	12/01-06/15	04/01-06/15	04/15-06/15	C	20	10	10	-30	-30
								. . . .	12/01-02/15	12/01-01/01		0	4	4	-	-
6157	Non	Non	208	208	C	C	C	06/15-10/15	06/15-10/15	06/15-10/15	C	12	12	12	0	0
6158	Non	Non	415	415	BC	BC	BC	05/01-12/01	05/01-12/01	05/01-12/01	C	29	29	29	0	0
6159	Non	Non	60	60	C	C	C	06/01-11/01	06/01-11/01	06/01-11/01	C	3	3	3	0	0
6160	Non	Non	320	320	C	C	C	03/01-02/28	04/15-11/01	05/01-11/01	C	16	16	16	0	0
6161	Non	Non	617	617	C	C	C	04/01-05/31	04/01-05/31	04/15-06/15	C	15	15	15	0	0
								11/01-12/31	11/01-12/31	11/01-12/31		16	16	16	-	-

APPENDIX 2-3, TABLE A (Cont.)
GRAZING MANAGMENT ALTERNATIVES BY ALLOTMENT

	Intensity of Management		Allotment Acres		Grazing Treatments 2/			Season Of Use				Level of Livestock Use			Percent Change from Current Management	
Allotment Number	Proposed Action	(Alt. 2) Resource Protection	Proposed Action 1/	(Alt. 2) Resource Protection	(Alt. 1) Current Management	Proposed Action	(Alt. 2) Resource Protection	(Alt. 1) Current Management	Proposed Action	(Alt. 2) Resource Protection	Kind of Stock 3/	(Alt. 1) Current Management	(AUMs) Proposed Action	(Alt. 2) Resource Protection	(Alt. 1) Proposed Action	(Alt. 2) Resource Protection
6163	Non	Non	386	386	C	C	C	05/01-10/01	05/01-10/01	05/01-10/01	C	22	8	8	-64	-64
6165	Non	Non	320	320	C	C	C	06/15-09/31	06/15-09/31	07/01-09/31	C	8	8	8	0	0
6167	Non	---	100 (682)	---	C	C	-	05/01-10/01	05/01-10/01	. . . .	C	34	14	--	-59	-100
6168	Non	Non	422	422	C	C	C	04/01-06/01	04/01-06/01	05/15-06/15	C	11	11	11	0	0
								11/01-01/01	11/01-01/01	11/01-01/01		12	12	12	-	-
6169	Non	Non	40	40	C	C	C	05/15-10/15	05/15-10/15	05/15-10/15	H	3	3	3	0	0
6171	Non	Non	201	201	C	C	C	05/01-10/15	05/01-10/15	05/01-10/15	C	11	11	11	0	0
6173	Non	Non	480	480	C	C	C	06/15-10/01	06/15-10/01	07/01-10/01	C	15	15	15	0	0
6174	Non	Non	510	510	C	C	C	05/01-11/01	05/01-11/01	05/01-11/01	C	26	26	26	0	0
6175	Non	Non	40	40	C	C	C	05/01-06/30	05/01-06/30	05/01-06/30	C	2	2	2	0	0
6177	Non	Non	456	456	C	C	C	11/01-06/01	04/01-06/01	04/15-06/15	C	12	7	7	0	0
								. . . .	11/01-01/01	11/01-01/01		0	5	5	-	-
6180	Non	Non	40	40	C	C	C	05/01-10/01	05/01-10/01	05/01-10/01	C	2	2	2	0	0
6182	Non	Non	227	227	C	C	C	04/01-06/01	04/01-06/01	04/15-06/15	C	15	7	7	-36	-36
								10/01-11/01	10/01-11/01	10/01-11/01		7	7	7	-	-
6183	Non	Non	137	137	C	C	C	04/15-12/01	04/15-06/15	04/15-06/15	C	14	8	8	0	0
								. . . .	10/15-12/01	10/15-12/01		0	6	6	-	-
					C	C	C	04/01-12/01	10/15-12/01	10/15-12/01	H	1	1	1	0	0
6184	Non	Non	948	948	AC	AC	AC	04/15-10/15	04/01-06/15	04/15-06/15	C	79	54	54	0	0
								. . . .	06/16-02/15	06/16-10/15		0	25	25	-	-
6185	Non	Non	120	120	C	C	C	05/01-10/01	05/01-10/01	05/01-10/01	C	11	11	11	0	0
6186	Non	Non	72	72	C	C	C	03/15-05/01	04/01-05/01	04/15-06/15	C	2	2	2	0	0
								10/01-12/01	10/15-12/01	10/01-12/01		3	3	3	-	-
					C	C	C	03/15-12/01	10/15-12/01	10/01-12/01	H	1	1	1	0	0
6187	Non	Non	486	486	C	C	C	03/01-02/28	04/15-06/15	04/15-06/15	C	25	12	12	0	0
								. . . .	11/01-01/01	11/01-01/01		0	13	13	-	-
6189	Non	Non	40	40	C	C	C	05/01-10/01	05/01-10/01	05/01-10/01	C	2	2	2	0	0
6190	Non	Non	32	32	C	C	C	05/15-11/01	05/15-11/01	05/15-11/01	C	2	1	1	-50	-50
6191	Non	Non	259	259	C	C	C	12/01-06/01	04/01-06/01	04/15-01/01	C	23	15	15	0	0
								. . . .	12/01-01/01	12/01-01/01		0	8	8	-	-
6193	Non	Non	204	204	C	C	C	05/15-07/15	05/15-07/15	05/15-07/15	C	7	5	5	0	0
								10/01-11/01	10/01-11/01	10/01-11/01		4	6	6	-	-
					C	C	C	05/15-07/15	05/15-07/15	05/15-07/15	H	1	1	1	0	0
								10/01-11/01	10/01-11/01	10/01-11/01		1	1	1	-	-
6195	AMP	AMP	8236	6236	C	BC	BC	03/01-02/28	11/01-06/15	11/01-06/15	C	597	364	289	0	0
								. . . .	06/16-10/31	06/16-11/01		0	233	233	-	-
6196	Non	Non	438	438	C	C	C	05/01-06/15	05/15-06/15	05/15-06/15	C	22	22	22	0	0
								10/01-11/15	10/01-11/15	10/01-11/15		22	22	22	0	-
6197	Non	Non	235	235	C	C	C	05/01-11/01	05/01-11/01	05/01-11/01	C	14	5	5	-64	-64
6198	Non	Non	1320	1320	C	C	C	03/01-02/28	04/15-06/15	04/15-06/15	C	93	19	19	0	0
							C	. . . .	06/16-11/01	06/16-11/01		0	74	74	-	-
6200	Non	Non	263	263	C	C	C	04/01-07/01	04/01-06/15	04/15-06/15	C	13	13	13	0	0
								09/01-12/01	09/01-12/01	10/15-12/15		14	14	14	-	-
6201	Non	Non	160	160	C	C	C	04/01-11/01	04/15-11/01	04/15-11/01	C	6	6	6	0	0
6203	Non	Non	3546	1546	C	C	-	03/01-02/28	01/01-03/31	. . . .	C	166	50	0	0	-45
							C	. . . .	04/01-06/15	04/01-06/15		0	49	24	-	-
							C	. . . .	06/16-08/31	06/16-08/31		0	18	18	-	-
							C	. . . .	09/01-12/31	09/01-12/31		0	49	49	-	-

APPENDIX 2-3, TABLE A (Cont.)
GRAZING MANAGEMENT ALTERNATIVES BY ALLOTMENT

Allot-ment Number	Intensity of Management		Allotment Acres		Grazing Treatments 2/			Season Of Use			Kind of Stock 3/	Level of Livestock Use			Percent Change from Current Management	
	Proposed Action	(Alt. 2) Resource Protection	Proposed Action 1/	(Alt. 2) Resource Protection	(Alt. 1) Current Management	Proposed Action	(Alt. 2) Resource Protection	(Alt. 1) Current Management	Proposed Action	(Alt. 2) Resource Protection		(Alt. 1) Current Management	(AUMs) Proposed Action	(Alt. 2) Resource Protection	(Alt. 1) Proposed Action	(Alt. 2) Resource Protection
6204	Non	Non	72	72	C	C	C	06/01-10/15	06/01-10/15	06/01-10/15	C	8	8	8	0	0
6205	Non	Non	40	40	C	C	C	05/01-07/15	05/01-07/15	05/01-07/15	C	2	2	2	0	0
								10/01-10/31	10/01-10/31	10/01-10/31		1	1	1	-	-
6206	AMP	AMP	941	941	C	BC	BC	06/01-10/01	06/01-10/01	06/01-10/01	C	50	34	34	0	0
6207	Non	Non	40	40	C	C	C	04/15-06/15	04/15-06/15	04/15-06/15	C	2	1	1	-40	-40
								10/01-12/01	10/01-12/01	10/15-12/01		3	2	2	0	-
6208	Non	Non	74	74	C	C	C	10/01-05/01	04/01-05/01	04/15-06/15	C	8	1	1	-37	-37
								. . . .	10/01-01/01	10/15-01/01		0	4	4	-	-
6209	Non	Non	185	185	C	C	C	04/15-10/01	04/15-10/01	04/15-10/01	C	11	11	11	0	0
6210	Non	Non	65	65	C	C	C	05/01-11/01	05/01-11/01	05/01-11/01	C	7	7	7	0	0
6211	Non	Non	200	200	C	C	C	05/15-09/15	05/15-09/15	05/15-09/15	C	10	10	10	0	0
6212	Non	Non	292	292	C	C	C	06/15-11/01	06/15-11/01	06/15-11/01	C	18	18	18	0	0
6213	Non	Non	40	40	C	C	C	04/20-06/20	04/20-06/20	04/20-06/20	C	2	1	1	0	0
								10/01-11/30	10/01-11/30	10/01-11/30		0	1	1	-	-
6214(a)	Non	---	460 (1051)	---	C	C	-	04/01-05/01	04/15-05/15	. . . .	C	26	11	--	-57	-77
								09/15-11/01	09/15-11/01	. . . .		27	12	--	-	-
6214(b)	Non	Non	294	294	C	C	C	04/01-05/01	05/15-09/15	05/15-09/15	C	8	15	15	0	0
								09/15-11/01	. . . .	. . . .		7	0	0	-	
6216	Non	Non	198	198	C	C	C	04/15-11/01	04/15-11/01	04/15-11/01	C	10	10	10	0	0
6218	Non	Non	43	43	C	C	C	05/01-08/01	05/01-08/01	05/01-08/01	C	3	3	3	0	0
6220	Non	Non	455	455	C	C	C	04/15-11/01	04/15-11/01	05/01-11/01	C	23	3	3	-87	-87
6221	Non	Non	200	200	C	C	C	05/01-09/01	05/01-09/01	05/01-09/01	C	11	3	3	-73	-73
6222	Non	Non	280	280	C	C	C	04/01-06/01	04/15-06/01	04/15-06/01	C	7	2	2	-64	-64
								09/01-11/01	10/01-11/01	10/01-11/01		7	3	3	-	-
6223	Non	Non	40	40	C	C	C	05/01-10/01	05/01-10/01	05/01-10/01	C	2	1	1	-50	-50
6224	Non	---	227	---	C	C	-	04/15-06/15	04/15-06/15	. . . .	C	12	12	-	0	-100
								10/01-11/15	10/01-11/15	. . . .		12	12	-	-	-
6225	Non	Non	320	320	C	C	C	04/01-12/01	04/15-12/01	05/01-12/01	C	19	7	7	-63	-63
6226	Non	Non	40	40	C	C	C	04/01-11/01	04/01-06/15	04/15-06/15	C	2	1	1	0	0
								. . . .	10/01-11/01	10/01-11/01		0	1	1	-	-
6227	Non	Non	65	65	C	C	C	05/01-11/30	05/01-11/30	05/01-11/30	C	4	4	4	0	0
6228	Non	Non	32	32	C	C	C	04/01-06/01	04/01-06/01	04/15-06/15	C	2	2	2	0	0
								10/01-11/01	10/15-11/01	10/15-11/15		1	1	1	-	-
6229	Non	Non	357	357	C	C	C	04/15-12/01	04/15-12/01	05/01-12/15	C	18	18	18	0	0
6231	Non	Non	48	48	C	C	C	04/01-12/31	04/01-06/15	04/15-06/15	C	6	3	3	0	0
								. . . .	10/15-01/01	10/15-01/01		0	3	3	-	-
6233	AMP	AMP	3762	3162	C	AC	AC	07/01-10/01	07/01-10/01	07/01-10/01	C	29	59	50	0	-15
								07/01-10/01	. . . .	. . . .	H	30	0	0	-	-
6234	Non	Non	254	254	C	C	C	06/01-11/01	06/15-11/01	06/15-11/01	C	19	19	19	0	0
					C	C	C	06/01-11/01	06/15-11/01	06/15-11/01	H	1	1	1	0	0
6235	Non	Non	310	310	C	C	C	04/15-07/01	04/15-07/01	05/01-07/15	C	16	9	9	-44	-44
6236	Non	Non	320	320	C	C	C	04/15-06/01	04/15-06/01	04/15-06/01	C	7	7	7	-7	-7
								11/01-12/20	11/01-12/20	11/01-12/20		8	7	7	-	-
6237	Non	Non	55	55	C	C	C	12/01-05/15	04/01-05/15	04/15-05/15	C	9	3	3	0	0
								. . . .	12/01-01/01	12/01-01/01		0	6	6	-	-
6240	AMP	AMP	9166	9166	C	BC	BC	10/15-07/15	11/01-02/01	11/01-02/01	S	459	151	151	0	0
								. . . .	04/01-07/15	04/15-07/15		0	308	308	-	-

APPENDIX 2-3, TABLE A
GRAZING MANAGMENT ALTERNATIVES BY ALLOTMENT

Allot-ment Number	Intensity of Management		Allotment Acres		Grazing Treatments 2/			Season Of Use			Kind of Stock 3/	Level of Livestock Use			Percent Change from Current Management	
	Proposed Action	(Alt. 2) Resource Protection	Proposed Action 1/	(Alt. 2) Resource Protection	(Alt. 1) Current Management	Proposed Action	(Alt. 2) Resource Protection	(Alt. 1) Current Management	Proposed Action	(Alt. 2) Resource Protection		(Alt. 1) Current Management	(AUMs) Proposed Action	(Alt. 2) Resource Protection	(Alt. 1) Proposed Action	(Alt. 2) Resource Protection
6241	AMP	AMP	2251	2251	C	AC	AC	06/10-09/19	06/10-09/19	06/15-09/19	C	226	226	226	0	0
6242	Non	Non	4350	4350	C	C	C	06/15-07/15	06/15-07/15	06/15-07/15	S	218	218	218	0	0
6243	Non	Non	171	171	C	C	C	05/01-10/01	05/01-10/01	05/01-10/01	H	10	4	4	-60	-60
6244	Non	Non	266	266	C	C	C	04/15-01/01	04/15-01/01	04/15-01/01	C	25	25	25	0	0
6245	Non	Non	2357	2357	C	C	C	07/15-10/01	07/15-10/01	07/15-10/01	C	85	85	85	0	0
6246	Non	Non	1318	1318	C	C	C	05/01-07/01	05/01-07/01	05/01-07/01	C	155	52	52	-67	-67
								10/15-11/15	10/15-11/15	10/15-11/15		78	26	26	-	-
6247	AMP	AMP	2254	2254	C	AC	AC	06/01-11/01	06/15-10/15	06/15-10/15	C	79	22	22	-72	-72
					C	C	C	06/01-11/01	04/15-06/15	04/15-06/15	S	159	5	5	-66	-66
					C	AC	AC	. . . . . .	06/15-10/15	06/15-10/15		0	49	49	-	-
6251	Non	Non	90	90	C	C	C	07/01-10/15	07/01-10/15	07/01-10/15	C	6	6	6	0	0
6252	Non	Non	308	308	C	C	C	11/01-02/28	04/01-06/15	04/15-06/15	C	17	8	8	-6	-6
								. . . . . .	11/01-02/15	11/01-01/01		0	8	8	-	-
6253	Non	Non	140	140	C	C	C	05/01-10/01	05/01-10/01	05/01-10/01	C	14	14	14	0	0
6255	Non	Non	2365	2365	C	C	C	. . . . . .	04/01-07/15	04/15-07/15	S	54	54	64	0	0
								. . . . . .	11/01-02/01	11/01-02/01		64	64	54	-	-
6256	Non	Non	1010	1010	C	C	C	06/01-08/01	06/01-08/01	06/15-08/15	C	103	103	103	0	0
6257	Non	Non	383	383	C	C	C	11/01-07/01	04/01-06/15	04/15-06/15	C	37	20	20	0	0
							C	. . . . . .	11/01-01/01	11/01-01/01		0	17	17	-	-
6258	Non	Non	11	11	C	C	C	11/01-06/01	04/01-06/01	04/15-06/15	C	2	1	1	0	0
								. . . . . .	10/15-01/01	10/15-01/01		0	1	1	-	-
6259	Non	Non	117	117	C	C	C	04/01-06/01	04/01-06/01	04/15-06/15	C	10	10	10	0	0
6260	AMP	AMP	1819	1819	C	BC	BC	04/01-06/15	04/01-06/15	04/15-06/15	C	135	75	75	0	0
								10/01-01/15	11/01-01/01	11/01-01/01		0	60	60	-	-
6261	AMP 4/	AMP	1120	1120	AC	AC	AC	07/01-10/01	07/01-10/01	07/01-10/01	C	45	45	45	0	0
6262	Non	Non	40	40	C	C	C	04/01-06/15	04/01-06/15	04/15-06/15	C	9	9	9	0	0
6263	Non	Non	40	40	C	C	C	05/01-11/01	05/01-11/01	05/01-11/01	C	2	2	2	0	0
6264	Non	Non	824	824	C	C	C	04/15-06/01	04/15-06/01	04/15-06/01	C	24	24	24	0	0
								10/01-12/01	10/01-12/01	10/01-12/01		25	25	25	-	-
6265	Non	Non	150	150	C	C	C	04/15-06/15	04/15-06/15	04/15-06/15	C	9	9	9	0	0
								10/31-12/31	10/31-12/31	10/31-12/31		9	9	9	-	-
6266	Non	Non	1206	1206	C	C	C	11/01-06/15	04/01-06/15	04/15-06/15	C	51	28	28	0	0
								. . . . . .	11/01-02/15	11/01-01/01		0	23	23	-	-
					C	C	C	11/01-06/15	04/01-06/15	04/15-06/15	S	50	27	27	0	0
								. . . . . .	11/01-02/15	11/01-01/01		0	23	23	-	-
6267	Non	Non	40	40	C	C	C	06/15-10/15	06/15-10/15	06/15-10/15	C	1	1	1	0	0
					C	C	C	06/15-10/15	06/15-10/15	06/15-10/15	H	1	1	1	0	0
6268	Non	Non	187	187	C	C	C	04/15-06/15	04/15-06/15	04/15-06/15	C	5	5	5	-10	-10
								10/01-11/15	10/01-11/15	10/01-11/15		5	4	4	0	-
6270	Non	Non	160	160	C	C	C	04/01-10/15	04/15-06/15	04/15-06/15	C	7	6	6	-14	-14
6271	Non	Non	390 (683)	390	C	C	C	. . . . . .	04/01-06/15	05/15-06/15	C	20	20	20	0	0
								. . . . . .	10/01-11/15	10/01-11/15		21	21	21	-	-
6273	Non	Non	636	636	C	C	C	10/01-06/01	04/01-06/01	04/15-06/15	C	40	16	16	0	0
								. . . . . .	10/01-01/01	10/01-01/01		0	24	24	-	-
6276	Non	Non	79	79	C	C	C	06/01-11/01	06/01-11/01	06/01-11/01	C	6	6	6	0	0
6277	Non	Non	3	3	C	C	C	06/01-10/01	06/01-10/01	06/01-10/01	C	1	1	1	0	0
6278	Non	Non	40	40	C	C	C	03/15-06/01	04/01-06/01	04/15-06/15	C	2	2	2	0	0
								11/01-01/01	11/01-01/01	11/01-01/01		3	3	3	-	-

APPENDIX 2-3, TABLE A (Cont.)
GRAZING MANAGEMENT ALTERNATIVES BY ALLOTMENT

Allotment Number	Intensity of Management		Allotment Acres		Grazing Treatments 2/			Season Of Use			Kind of Stock 3/	Level of Livestock Use			Percent Change from Current Management	
	Proposed Action	(Alt. 2) Resource Protection	Proposed Action 1/	(Alt. 2) Resource Protection	(Alt. 1) Current Management	Proposed Action	(Alt. 2) Resource Protection	(Alt. 1) Current Management	Proposed Action	(Alt. 2) Resource Protection		(Alt. 1) Current Management	(AUMs) Proposed Action	(Alt. 2) Resource Protection	(Alt. 1) Proposed Action	(Alt. 2) Resource Protection
6279	AMP	AMP	11650	7650	C	BC	BC	03/01-02/28	11/01-06/15	11/01-06/15	C	809	445	310	0	0
					C	AC	AC	. . . .	06/16-10/31	06/16-11/01		0	364	364	-	-
6280	Non	Non	292	292	C	C	C	11/01-05/01	04/01-05/01	04/15-05/15	C	23	8	8	-4	-4
								. . . .	11/01-01/01	11/01-01/01		0	14	14	-	-
6281	AMP	AMP	2902	2902	C	C	C	05/01-11/15	04/01-06/15	04/15-06/15	C	179	5	5	0	0
						AC	AC	. . . .	06/16-10/31	06/16-10/31		0	170	170	-	-
						C	C	. . . .	11/01-01/01	11/01-01/01		0	4	4	-	-
6282	Non	Non	345	345	C	C	C	10/01-06/01	04/01-06/01	04/15-06/15	C	38	18	18	-3	-3
								. . . .	11/01-01/01	11/01-01/01		0	19	19	-	-
6283	Non	Non	35	35	C	C	C	05/01-09/01	05/01-09/01	05/01-09/01	C	3	3	3	0	0
6284	AMP	AMP	3330	3330	C	BC	BC	07/01-09/30	07/01-09/30	07/01-09/30	S	166	166	166	0	0
6285	Non	Non	200	200	C	C	C	03/15-05/15	04/01-05/15	04/15-06/15	C	3	2	2	-17	-17
								11/01-12/15	11/01-12/15	11/01-12/15		3	3	3	-	-
6286	Non	Non	40	40	C	C	C	04/01-12/15	04/01-12/15	04/15-12/15	C	2	2	2	0	0
6287	Non	Non	40	40	C	C	C	05/01-11/01	05/01-11/01	05/01-11/01	H	3	3	3	0	0
6288	Non	Non	85	85	C	C	C	04/01-11/30	04/15-06/15	04/15-06/15	H	5	2	2	-60	-60
6289	AMP	AMP	3410	3410	C	AC	AC	. . . .	04/15-06/15	04/15-06/15	C	74	74	74	0	0
								. . . .	11/01-01/01	06/15-11/01		61	61	61	-	-
6290	Non	Non	1286	1286	C	C	C	04/01-02/15	04/01-02/15	04/15-02/15	C	12	12	12	0	0
6291	Non	Non	912	912	C	C	C	04/01-07/01	04/01-06/15	04/15-06/15	C	63	63	63	0	0
6292	Non	Non	50	50	C	C	C	04/01-06/15	04/01-06/15	04/15-06/15	H	2	2	2	0	0
								10/15-01/01	10/15-01/01	10/01-01/01		3	3	3	-	-
6293	AMP	AMP	1374	1374	C	BC	BC	10/15-07/01	10/15-01/01	11/01-01/01	C	50	12	12	-46	-46
								. . . .	04/01-06/15	04/15-06/15		0	15	15	-	-
					C	BC	BC	11/01-06/01	10/05-02/15	11/01-02/01	S	66	14	14	-61	-61
								. . . .	04/01-06/15	04/15-06/15		0	12	12	-	-
6294	Non	Non	160	200	C	C	C	05/01-09/01	05/01-09/01	05/15-09/15	C	32	10	10	-69	-69
6295	Non	Non	23	23	C	C	C	06/15-09/30	06/15-09/30	06/15-09/30	C	3	3	3	0	0
AMP's	15	14	53834	46794								45	3069	2795	-	-
Non-AMP's	157	153	67197	65197								7502	3615	3469	-	-
TOTAL	172	167	121031	111991								7547	6684	6264	12	17

1/ Five allotments have changes in acreages between the proposed action and current management. The acreages shown in parenthesis are the acres leased under current management.

2/ Grazing Treatment Key
A - Rest
B - Deferred
C - Annual Seasonal

3/ Kind of Stock Key
C - Cattle
H - Horses
S - Sheep

4/ Allotment 6261 is the only allotment currently managed as an AMP.

SOURCE: BLM, Coeur d'Alene District, 1981.

APPENDIX 2-4
METHODOLOGY FOR DETERMINING RANGE CONDITION AND APPARENT TREND

RANGE CONDITION

Range Condition was determined by evaluating present vegetation composition in relation to potential natural vegetation (climax plant community). Four range condition classes (Excellent, Good, Fair, and Poor) were used to indicate the composition of the present plant community in relation to the potential plant community. Range Site Descriptions for northern Idaho (SCS 1977) were used for determination of the climax vegetation. A range site is defined in the National Range Handbook (SCS 1976) as a destinctive kind of rangeland that differs from other kinds of rangeland in its ability to produce a characteristic natural plant community. A range site is the product of all the environmental factors responsible for its development. It is capable of supporting a native plant community typified by an association of species that differs from that of other range sites in the kind or proportion of species or in total production.

The estimated vegetation composition of each range site, as determined by ocular and weight estimate surveys, was compared with the potential natural vegetation for that range site. Vegetation communities in which climax grass species have been partially or completely replaced by desirable introduced perennial grass species (sand dropseed, Canada bluegrass, Kentucky bluegrass, orchard grass, or Timothy) have had these species included in the condition class rating system. These five plant species were chosen for both their high livestock forage values and soil stabilizing characteristics.

Forest habitat type sites were not given a range condition classification. Forest habitat types areas in most cases provided more forage and have higher forage quality in a seral condition. As succession advances to a climax condition, forage quality and quantity often decline in forest habitat areas. Canopy cover of the timbered areas is often directly correlated with forage quantity and quality. A forest habitat type with a dense timber canopy cover (over 60%) will have less useable forage than an area with an open canopy cover (less than 30%) in most cases.

APPARENT RANGE TREND

The majority of the allotments in the EIS area do not have trend studies for determination of apparent trend. Without an initial monitoring point for comparison, trend can not be determined. Consequently, only apparent trend can be determined from evaluation of data collected at a single point in time (Stoddart et al. 1975). Five characteristics are usually evaluated for determination of trend and they are: vegetation composition, vigor, age class distribution and reproduction, surface litter, and soil movement. The above factors were evaluated on survey areas for determination of apparent trend by qualified personnel. Refer to Table A (BLM, ISO Form 4400-1) for the guide used for determining apparent trend.

APPENDIX 2-4, FIGURE A

ISO 4400-1
March 1979

N
+ + +
W + + + E
+ + +
S

SEC___
TWP___
RNG___

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RANGE CONDITION WORKSHEET

Allotment ______________________ Date ______________________
District & P.U. No. ______________________ Aerial Photo No. ______________________
Ecological Site Name ______________________ Examiner ______________________
Vegetative Type ______________________ Write-up No. ______________________

Plant Groups	Plant Names or Symbols	% or Weight Present	% or Weight Potential
Grasses and Grass-like Plants			
___ % or #			
Forbs			
___ % or #			
Shrubs and Trees			
___ % or #			
100% or #	TOTALS	(100% or Pounds)	

Condition Indicators
(Check ones that apply)

% Potential Vegetation	Current Erosion	Stand for Site	Preferred Species Present	Final Condition Rating
100-76	Stable	3/4 to full	Many to all 30+%	Excell.
75-51	Slightly active	1/2 to 3/4	Several to Many 20-30%	Good
50-26	Moderately active	1/4 to 1/2	Few to Several 10-20%	Fair
25-0	Critical or Severely active	0 to 1/4	None to Few 0-10%	Poor

Remarks

Ground Cover Data	%
Litter	
Veg.	
Bare	
Rock	
	100%

ESTIMATED PRODUCTION:

Total Lbs/Ac (air dry) ______________________

Usable Lbs/Ac ______________________ (Soil Mapping Units)

A/AUM ______________________

APPENDIX 2-4, FIGURE B

OBSERVED APPARENT TREND - Range Condition

		Possible Points	Rating*	Remarks
1.A. VEGETATION SEEDED	More than 50 percent of the total vegetation is composed of the seeded species. If shrubs are present, the seeded species occur mainly in open spaces between shrubs. Undesirable annual vegetation is absent or nearly so.	5-6		
	25 to 50 percent of the vegetation is composed of the seeded species. If shrubs are present, some seeded species occur in open, unprotected areas. Limited amounts of undesirable annual vegetation are present.	3-4		
	Less than 25 percent of the vegetation is composed of the seeded species. Seeded species are generally protected by shrubs or rocks. There is an over-abundance of undesirable annuals and/or shrubs.	0-2		
1.B. VEGETATION NATIVE	There is, or tends to be, a heterogeneous mixture of grasses, forbs, and shrubs across the landscape. Major native forage grasses occur in open, unprotected areas. Invaders or unnatural annual vegetation is less than 5 percent. Browse species show no evidence of hedging.	5-6		
	Areas of pure stands of undesirable perennials or invading annuals are present. Some major native forage plants occur in open, unprotected areas. Invader or unnatural annuals make up less than 15 percent of the production. Browse species show moderate hedging.	3-4		
	Poor variation exists among grasses, forbs, and shrubs, with an over-abundance of undesirable annuals or shrubs. Major native forage species are generally protected by shrubs or rocks. Browse species showing heavy hedging.	0-2		
2. VIGOR	Desirable grasses, forbs, and shrubs are vigorous--showing good health. These plants should have good size, color, and should produce abundant herbage.	7-10		
	Desirable grasses, forbs, and shrubs have moderate vigor. They are medium-size with fair color and producing moderate amounts of herbage; some seed stalks and seedheads are present.	3-6		
	Desirable grasses, forbs, and shrubs have low vigor. They appear unhealthy with small size and poor color. Portions of clumps or entire plants are dead or dying. Seed stalks and seedheads almost non-existent except in protected areas.	0-2		
3. AGE CLASS DISTRIBUTION AND REPRODUCTION	There is seedling establishment (plants over two years old) of desirable climax species in open spaces between plants and along edges of soil pedestals. There is evidence that the older, less desirable plants are dying and are being replaced by the desirable climax species.	7-10		
	Seedlings of individual species are becoming established at about the same rate as the older plants are dying. There is little evidence of change in species composition. Seedlings are primarily in protected spots.	3-6		
	Mature and dying plants are being replaced by seedlings of invader species or undesirable climax species. Any seedlings of the desirable species are found only in protected areas.	0-2		
4. SURFACE LITTER	Surface litter is accumulating in place.	5		
	Moderate movement of surface litter is apparent and deposited against obstacles.	4		
	Very little surface litter is remaining.	0-3		
5. SOIL MOVEMENT	None or slight visual evidence of soil movement. No exposed roots.	4-5		
	Moderate movement of soil particles visible. Some plants have roots exposed.	2-3		
	Movement occurs with each event. Soil and debris deposited against minor obstructions. Terracing may be present. Many plants have roots exposed.	0-1		
		Total		

*See instructions.

7-18	Downward
19-26	Static
27-36	Upward

General Remarks:

APPENDIX 2-5

FISHERIES HABITAT

Stream Name	Allotment Number	Stream Miles	Coldwater Fish Species 1/	Potential For Anadromous Production	Overall Stream bank Stability	Overall Fish Habitat Suitability	Conflicting Activities 2/	Limiting Factors 3
N. Fk. Mica Cr.	6002	.5	CT	None	Excellent	Good	----	DE
Pack River	6012	.1	CT,RB	None	Good	Good	----	----
Robinson Cr.	6016	1.0	CT	None	Fair	Fair	GR	FL,CO,ST
Latour Cr.	6019	3.5	BT,CT	None	Good	Good	AL	PO,CH
Getta Cr.	6105	.8	RB	Poor	Good	Fair	GR,LO,RO	FL,SI,SG, SP
	6198	1.7	RB	Poor	Good	Fair	GR,LO,RO	FL,SI,SG, SP
Wolf Cr.	6137	.4	RB	Fair	Good	Fair	GR	FL,SI,MI, SP
Divide Cr.	6203	2.1	RB	Fair	Good	Fair	GR	MI,SG,SP
Capt. John Cr.	6289	2.1	RB	Fair	Good	Good	GR,LO,RO,DI	SI,MI,DE
S. Fk. Capt. John Cr.	6279	.7	RB	Poor	Good	Fair	LO	FL,PO
French Cr.	6240	1.4	BT,RB	Good	Excellent	Good	----	SG
Elkhorn Cr.	6240	1.0	RB	Good	Excellent	Fair	----	----
Partridge Cr.	6240	3.2	RB	Poor	Excellent	Fair	----	PO,SG
Lake Cr.	6255	.4	RB	Poor	Good	Fair	GR,RO	FL,PO,SG, SP,CH
John Day Cr.	6281	2.8	CT,RB	Good	Fair	Good	GR,RO	PO,MI,SG
S. Fk. John Day Cr.	6281	2.1	CT,RB	Poor	Good	Fair	GR,RO	FL,PO,MI
E. Fk. John Day Cr.	6281	.8	CT,RB	Poor	Good	Fair	RO,LO	FL,PO,MI
Slate Cr.	6277	.2	CT,RB	Good	Good	Good	RO	----
Telcher Cr.	6177	.8	RB	Poor	Good	Poor	GR	FL,PO,SG
	6273	.4	RB	Poor	Good	Poor	GR	FL,PO,SG

APPENDIX 2-5 (Cont.)

FISHERIES HABITAT

Stream Name	Allotment Number	Stream Miles	Coldwater Fish Species 1/	Potential For Anadromous Production	Overall Stream bank Stability	Overall Fish Habitat Suitability	Conflicting Activities 2/	Limiting Factors 3
Burnt Cr.	6123	1.5	RB	Poor	Good	Fair	GR	FL,PO,SI, SG
	6195	.5	RB	Poor	Good	Fair	GR	FL,PO,SI, SG
Maloney Cr.	6119	.6	RB,WF	Poor	Good	Fair	GR,LO,RO	FL,SI
Cottonwood Cr.	6195	1.2	RB	Fair	Good	Fair	GR,LO,RO	SI,CO,MI, ST
Deer Cr.	6279	2.6	BT,RB	Poor	Good	Fair	GR,RO	SI,TE,CO, ST
Eagle Cr.	6279	2.1	RB	Fair	Fair	Fair	GR.LO,RO	SI,MI,DE
China Cr.	6279	.5	RB	Poor	Fair	Fair	GR,LO,RO	FL,SI,MI
Trail Cr.	6245	1.4	CT.RB	Fair	Fair	Fair	GR,RO	FL,SI
Hazard Cr.	6242	.7	BT,DV,RB	Good	Excellent	Excellent	----	----
Hard Cr.	6242	1.1	BT,DV,RB	Good	Excellent	Good	----	FL,MI,SG
Little Elk Cr.	6212	.8	RB	Fair	Excellent	Fair	----	FL,PO,MI, DE,SG
Fall Cr.	6249	.9	RB	None	Excellent	Fair	----	MI,SG
N. Fk. Rattlesnake Cr.	6241	.8	RB	None	Good	Poor	----	FL,PO,SG
	6246	1.3	RB	None	Fair	Poor	----	FL,PO,SG
Hat Cr.	6241	1.9	RB	Poor	Fair	Poor	GR,LO,DI	FL,PO,ST, SG
Sheep Cr.	6247	2.2	RB	Poor	Good	Poor	----	FL,PO,SG, MI,SP
	6262	.3	RR	Poor	Good	Poor	LO,RO	FL,PO,SG, MI,SP
American R.	6233	1.5	BT,CT,DV,RB,WF	Fair	Fair	Good	GR,LO,RO,MI,AL	FL,SI,CO, ST

APPENDIX 2-5 (Cont.)

FISHERIES HABITAT

Stream Name	Allotment Number	Stream Miles	Coldwater Fish Species 1/	Potential For Anadromous Production	Overall Stream bank Stability	Overall Fish Habitat Suitability	Conflicting Activities 2/	Limiting Factors 3
	6261	2.5	BT,CT,DV,RB,WF	Fair	Fair	Good	GR,LO,RO,MI,AL	FL,SI,CO, ST
W. Fk. American R.	6173	1.4	BT,CT,RB	Good	Fair	Good	GR,LO,RO,MI,AL	FL,SI,CO, ST
Kirk's Fork Cr.	6261	.8	CT,RB,WF	Fair	Good	Good	LO	SI,MI,DE
Little Elk Cr.	6212	.8	BT,CT,RB	Poor	Poor	Poor	GR,AL,MI,AL	FL,PO,SI, CO,ST
Big Elk Cr.	6146	1.0	BT,CT,RB	Fair	Good	Fair	GR	FL
Buffalo Gulch	6146	1.3	BT,CT	Fair	Fair	Fair	GR,LO,RO,MI,AL	FL
	6233	1.2	BT,CT	Fair	Fair	Fair	GR,LO,RO,MI,AL	FL
	6239	.2	BT,CT	Fair	Fair	Fair	GR,LO,RO,MI,AL	FL
Red R.	6233	.6	BT,CT,DV,RB,WF	Excellent	Good	Good	LO,RO	SI
Maurice Cr.	6233	1.2	CT,RB	Poor	Fair	Poor	LO,RO	FL,SI,MI, DE
Whiskey Cr.	6233	1.2	BT,CT,RB	Fair	Fair	Fair	GR	FL,SI,MI, DE
Mill Cr.	6243	.2	RB	Fair	Good	Fair	----	FL
Butcher Cr.	6190	.1	RB	Poor	Fair	Poor	----	FL
Sally Ann Cr.	6288	.2	RB	Fair	Good	Fair	----	FL,SG
Threemile Cr.	6205	.3	RB	Fair	Good	Fair	----	FL,SG
Cottonwood Cr.	6160	.2	RB	Fair	Fair	Fair	GR,AG	SI,CH
Lawyer Cr.	6101	1.2	RB	Fair	Good	Fair	GR,AG	FL,SI,MI, SG
	6185	.3	RB	Fair	Good	Fair	AG	FL,SI,MI, SG
	6189	.2	RB	Fair	Good	Fair	AG	FL,SI,MI, SG

APPENDIX 2-5 (Cont.)

FISHERIES HABITAT

Stream Name	Allotment Number	Stream Miles	Coldwater Fish Species 1/	Potential For Anadromous Production	Overall Stream bank Stability	Overall Fish Habitat Suitability	Conflicting Activities 2/	Limiting Factors 3
Sixmile Cr.	6163	.3	RB	Fair	Fair	Fair	LO	SI,CH
Lolo Cr.	6142	.6	BT,CT,RB,WF	Good	Good	Good	GR,LO,RO,MI	SI
	6143	1.0	BT,CT,RB,WF	Good	Good	Good	GR,LO,RO,MI	SI
	6151	1.3	BT,CT,RB,WF	Good	Good	Good	GR,LO,RO,MI	SI
	6157	.8	BT,CT,RB,WF	Good	Good	Good	GR,LO,RO,MI	SI
	6167	2.1	BT,CT,RB,WF	Good	Good	Good	GR,LO,RO,MI	SI
	6214	2.1	BT,CT,RB,WF	Good	Good	Good	GR,LO,RO,MI	SI
	6224	.6	BT,CT,RB,WF	Good	Good	Good	GR,LO,RO,MI	SI
	6271	1.0	BT,CT,RB,WF	Good	Good	Good	GR,LO,RO,MI	SI
Big Cr.	6158	.9	RB	Fair	Fair	Fair	GR,LO,RO	FL,SI
Little Canyon Cr.	6100	.5	RB,WF	Fair	Good	Fair	GR,AG,LO,RO	FL,PO,SI, CO,MI,CH
	6152	2.2	RB,WF	Poor	Fair	Poor	GR,AG,LO,RO	FL,PO,SI,
Big Canyon Cr.	6155	.4	RB,WF	Fair	Poor	Fair	GR,LO,AG,RO	FL,PO,SI, CO,MI,CH
	6206	2.3	RB,WF	Poor	Poor	Poor	GR,LO,AG,RO,	FL,PO,SI, CO,MI,CH
	6209	.3	RB,WF	Poor	Poor	Poor	GR,LO,AG,RO	FL,PO,SI, CO,MI,CH
	6220	.9	RB,WF	Poor	Poor	Poor	GR,LO,AG,RO	FL,PO,SI, CO,MI,CH
Potlatch River	6120	.7	RB	Fair	Fair	Fair	LO,RO	FL,SI
	6276	.3	RB	Fair	Fair	Fair	LO,RO	FL,SI
Little Potlatch Cr.	6207	.3	RB	Fair	Fair	Fair	LO,RO	FL,SI CO,MI,CH

APPENDIX 2-5 (Cont.)

FISHERIES HABITAT

Stream Name	Allotment Number	Stream Miles	Coldwater Fish Species 1/	Potential For Anadromous Production	Overall Stream bank Stability	Overall Fish Habitat Suitability	Conflicting Activities 2/	Limiting Factors 3
Middle Potlatch Cr.	6180	.1	RB	Fair	Fair	Fair	LO,RO	FL,SI
Lapwai Cr.	6222	.1	RB	Fair	Fair	Fair	LO,AG,RO	FL,PO,SI, TE,CO,ST, CH

1/ BT - Brook Trout
CT - Cutthroat Trout
DV - Dolly Varden Trout
RB - Rainbow Trout
WF - Whitefish

2/ GR - Livestock Grazing
LO - Logging
AG - Agricultural Activities
RO - Roads
MI - Mining
AL - Stream Channel Alterations
DI - Water Diversion

3/ FL - Water Flow
PO - Pools
SI - Silt
TE - Water Temperature
CO - Streambank Cover
MI - Migration Barriers
DE - Debris
ST - Streambank Stability
SG - Steep Gradient
SP - Spawning Gravels
CH - Channel Scouring

SOURCE: BLM, Coeur d'Alene District, 1980.

APPENDIX 3-1, TABLE A
EXISTING RANGE CONDITION AND APPARENT TREND

Allotment Number	Range Condition (Acres) Excellent	Good	Fair	Poor	Timber*	Unsuitable	Apparent Trend (Acres) Upward	Static	Downward
6000	0	0	0	0	52	35	0	87	0
6002	0	0	0	0	547	337	0	884	0
6003	0	0	0	0	153	87	0	240	0
6006	0	0	0	0	26	134	0	160	0
6007	0	0	0	0	223	137	0	360	0
6009	0	0	0	0	419	236	0	655	0
6010	0	0	0	0	91	814	0	905	0
6011	0	0	0	0	102	598	0	700	0
6012	0	0	0	0	30	10	0	40	0
6013	0	0	0	0	159	14	0	173	0
6014	0	0	0	0	70	55	0	125	0
6016	0	0	0	0	520	2360	0	2880	0
6019	0	0	0	0	653	3947	0	4600	0
6100	0	0	189	0	17	354	0	530	30
6101	0	0	67	10	7	76	0	150	10
6102	0	0	19	0	2	19	0	40	0
6104	0	0	12	10	40	59	0	111	10
6105	0	150	370	0	139	602	0	1261	0
6106	0	79	282	0	51	378	0	790	0
6107	0	0	0	0	139	356	0	495	0
6109	0	0	0	0	28	13	0	41	0
6110	0	0	0	0	219	1061	0	1280	0
6112	0	0	174	24	66	211	0	451	24
6113	0	0	37	16	0	45	0	98	0
6115	0	0	0	28	0	0	0	0	28
6116	0	0	165	40	0	499	0	664	40
6117	0	0	0	0	90	30	0	120	0
6118	0	50	170	0	0	186	0	406	0
6119	0	0	116	0	2	99	0	217	0
6120	0	0	0	20	24	76	0	120	0
6122	0	0	125	0	0	75	0	200	0
6123	0	0	117	30	100	419	0	636	30

APPENDIX 3-1, TABLE A (Cont.)
EXISTING RANGE CONDITION AND APPARENT TREND

Allotment Number	Range Condition (Acres) Excellent	Good	Fair	Poor	Timber*	Unsuitable	Apparent Trend (Acres) Upward	Static	Downward
6124	0	0	0	184	0	56	0	56	184
6125	0	0	0	0	5	75	0	80	0
6127	0	0	40	0	0	0	0	40	0
6128	0	0	28	0	0	4	0	32	0
6129	0	119	603	100	15	342	0	1079	100
6130	0	0	5	25	150	90	0	245	25
6132	0	0	118	0	0	23	0	141	0
6133	0	0	0	0	38	42	0	80	0
6134	172	110	132	0	75	158	67	580	0
6135	55	68	0	0	45	476	0	644	0
6137	0	165	361	208	47	396	0	1151	26
6138	0	103	187	65	0	100	0	390	65
6139	0	0	0	108	0	31	0	139	0
6141	0	0	0	0	77	108	0	185	0
6142	0	0	0	0	27	16	0	43	0
6143	0	0	0	0	35	157	0	192	0
6144	0	213	144	0	67	513	0	937	0
6145	0	32	0	0	5	203	0	240	0
6146	0	10	10	0	948	968	0	1936	0
6147	0	125	0	0	0	49	0	174	0
6148	0	0	0	0	32	128	0	160	0
6149	0	0	0	0	21	19	0	40	0
6150	0	0	58	0	0	0	0	58	0
6151	0	0	0	55	251	93	0	399	0
6152	0	153	0	0	44	243	0	440	0
6153	0	0	0	0	70	5	0	75	0
6154	0	40	0	0	0	0	0	40	0
6155	0	16	35	38	106	565	38	722	0
6156	0	0	115	60	0	90	0	205	60
6157	0	0	0	0	35	173	0	208	0
6158	0	113	72	0	40	190	0	415	0
6159	0	0	0	0	53	7	0	60	0
6160	0	179	31	0	18	92	0	320	0

APPENDIX 3-1, TABLE A (Cont.)
EXISTING RANGE CONDITION AND APPARENT TREND

Allotment Number	Range Condition (Acres)						Apparent Trend (Acres)		
	Excellent	Good	Fair	Poor	Timber*	Unsuitable	Upward	Static	Downward
6161	0	92	0	60	13	452	0	557	60
6163	0	25	0	37	57	267	0	386	0
6165	0	0	20	0	140	160	0	320	0
6167	0	0	36	0	74	572	0	682	0
6168	0	28	19	77	13	285	0	422	0
6169	0	0	13	8	0	19	0	40	0
6171	0	0	91	0	0	110	40	161	0
6173	0	0	40	0	200	240	40	440	0
6174	0	0	74	0	0	436	0	510	0
6175	0	0	0	0	20	20	0	40	0
6177	0	98	0	0	0	358	0	456	0
6180	0	0	0	0	20	20	0	40	0
6182	0	0	107	70	0	50	0	227	0
6183	0	28	6	0	33	70	0	137	0
6184	0	184	324	0	21	419	0	948	0
6185	0	0	23	11	9	77	0	120	0
6186	0	0	13	52	0	7	0	72	0
6187	0	0	141	0	11	334	0	486	0
6189	0	0	18	0	0	22	0	40	0
6190	0	0	4	16	0	12	0	12	20
6191	0	62	11	40	40	106	0	219	40
6193	0	0	0	0	81	123	0	204	0
6195	0	883	3330	100	439	3484	0	8136	100
6196	0	116	0	0	54	268	0	438	0
6197	0	0	52	90	0	93	0	235	0
6198	86	337	98	0	82	717	0	1320	0
6200	0	168	0	0	0	95	0	263	0
6201	0	0	40	0	33	87	0	160	0
6203	759	1218	431	0	108	1030	0	3509	37
6204	0	0	17	0	40	15	0	72	0
6205	0	0	0	0	23	17	0	40	0
6206	0	0	200	55	35	651	0	886	55
6207	0	0	0	29	0	11	0	11	29

APPENDIX 3-1, TABLE A (Cont.)
EXISTING RANGE CONDITION AND APPARENT TREND

Allotment Number	Range Condition (Acres) Excellent	Good	Fair	Poor	Timber*	Unsuitable	Apparent Trend (Acres) Upward	Static	Downward
6208	0	6	0	51	0	17	0	74	0
6209	0	8	3	16	13	145	0	182	3
6210	0	0	55	0	0	10	0	65	0
6211	0	44	0	0	29	127	0	200	0
6212	0	25	0	0	134	133	25	267	0
6213	0	0	17	18	0	5	0	40	0
6214 1/	0	0	44	0	432	278	0	754	0
6216	0	0	0	0	39	159	0	198	0
6218	0	0	0	0	23	20	0	43	0
6220	0	0	4	60	15	376	0	455	0
6221	0	0	0	50	28	122	0	150	50
6222	0	0	0	115	13	152	0	280	0
6223	0	0	0	14	5	21	0	40	0
6224	0	0	44	0	82	352	0	478	0
6225	0	0	0	35	70	215	0	320	0
6226	0	0	0	39	0	1	0	40	0
6227	0	0	0	55	0	10	0	10	55
6228	0	3	14	0	0	15	0	32	0
6229	0	0	98	0	86	173	0	357	0
6231	0	9	35	0	0	4	0	48	0
6233	0	80	80	0	1956	1646	0	3682	80
6234	0	0	40	0	95	119	0	254	0
6235	0	55	36	0	22	197	0	310	0
6236	0	16	138	23	0	143	0	320	0
6237	0	30	0	15	0	10	0	45	10
6240	240	180	160	0	4453	4133	0	9166	0
6241	0	60	120	0	753	1318	0	2251	0
6242	0	244	150	0	690	3266	0	4350	0
6243	0	0	0	20	55	96	0	171	0
6244	0	0	9	137	15	105	0	266	0
6245	0	101	0	185	1139	932	0	2052	305
6246	0	170	60	0	873	215	0	1258	60
6247	0	333	70	0	423	1428	0	2134	120

APPENDIX 3-1, TABLE A (Cont.)
EXISTING RANGE CONDITION AND APPARENT TREND

Allotment Number	Range Condition (Acres)						Apparent Trend (Acres)		
	Excellent	Good	Fair	Poor	Timber*	Unsuitable	Upward	Static	Downward
6251	0	0	3	0	10	77	0	90	0
6252	0	77	0	167	0	64	0	308	0
6253	0	0	0	0	56	84	0	140	0
6255	80	80	100	40	130	1935	0	2365	0
6256	0	50	0	0	760	200	0	1010	0
6257	0	108	48	43	7	177	0	340	43
6258	0	0	8	0	0	3	0	11	0
6259	0	80	3	0	15	19	0	117	0
6260	0	567	124	73	99	956	0	1746	73
6261	0	0	80	0	960	80	80	1040	0
6262	0	0	11	0	3	26	0	40	0
6263	0	0	0	0	38	2	0	40	0
6264	9	405	141	0	13	256	0	824	0
6265	0	31	12	0	0	107	0	150	0
6266	545	121	192	20	12	316	0	1206	0
6267	0	0	5	0	35	0	0	40	0
6268	0	45	29	0	0	113	0	187	0
6270	0	0	0	62	14	84	0	160	0
6271	0	0	35	0	200	448	0	683	0
6273	0	406	0	80	0	150	0	556	80
6276	0	0	0	0	37	42	0	79	0
6277	0	0	3	0	0	0	0	3	0
6278	0	0	0	40	0	0	0	40	0
6279	578	2914	1827	274	376	5681	300	11150	200
6280	0	139	0	124	0	29	0	292	0
6281	0	60	30	10	1002	1800	0	2892	10
6282	0	40	176	60	0	69	0	345	0
6283	0	8	9	0	18	0	0	35	0
6284	113	0	73	0	2423	721	0	3330	0
6285	0	0	98	0	9	93	0	200	0
6286	0	0	35	0	0	5	0	40	0
6287	0	0	0	0	34	6	0	40	0
6288	0	0	5	71	5	4	0	14	71

APPENDIX 3-1, TABLE A (Cont.)
EXISTING RANGE CONDITION AND APPARENT TREND

	Range Condition (Acres)						Apparent Trend (Acres)		
Allotment Number	Excellent	Good	Fair	Poor	Timber*	Unsuitable	Upward	Static	Downward
6289	80	390	206	30	220	2484	0	3410	0
6290	20	400	40	40	0	786	0	1286	0
6291	0	100	160	30	0	622	0	912	0
6292	0	0	50	0	0	0	0	50	0
6293	75	240	200	180	0	679	0	1194	180
6294	0	0	5	0	51	104	0	160	0
6295	0	4	0	0	19	0	0	23	0

1/ This figure is the combined total of allotment 6214a and allotment 6214b.

SOURCE: BLM, Coeur d'Alene District, 1980.

APPENDIX 3-1, TABLE B

FEDERAL THREATENED AND ENDANGERED, CANDIDATES FOR FEDERAL THREATENED AND ENDANGERED, OR STATE RARE PLANTS FOR THE NORTHERN IDAHO GRAZING EIS AREA

Scientific Name	Common Name	Status 1/	Occurrence 2/	Land Ownership 3/
Allium douglasii v. columbianum	Douglas onion	R	C	1,2,3
Allium tolmiei v. persimile	Tolmiei's onion	U	C	1,3
Aster jessicae	Jessica's aster	U	C	1
Calamagrostis tweedyi	Tweedy's reedgrass	U	C	3
Calochortus macrocarpus v. maculosus	green-banded mariposa lily	R	C	3
Calochortus nitidus	broad-fruited mariposa lily	U	C	1
Calypso bulbosa	fairy slipper	R	C	3
Carex aboriginum	sedge	U	S	---
Carex eurycarpa	wide-fruited sedge	R	C	3
Cyperus schweinitzii	flatsedge	R	C	3
Dodecathon dentatum	white shooting star	R	C	3
Halimolobos perplexa v. perplexa	perplexing halimolobos	U	S	---
Haplopappus liatriformis	palouse goldenweed	U	C	1
Hydrophyllum fendleri v. albifrons	Fendler's waterleaf	R	C	2,3
Lomatium dissectum v. dissectum	fern-leafed lomatium	R	C	3
Lomatium rollinsii	Rollin's lomatium	U	C	3
Mirabilis macfarlanei	MacFarlane's four o'clock	E	C	1,3
Penstemon glandulosus v. glandulosus	glandular penstemon	R	C	3
Penstemon triphyllus	whorled penstemon	R	C	1,3
Sedum lanceolatum v. rupicolum	lanceleaved stonecrop	R	C	1
Silene spaldingii	Spalding's silene	U	C	1

1/ E = Endangered R = Rare U = Candidates under review for threatened or endangered status

2/ C = Confirmed S = Suspected

3/ 1 = Private 2 = State 3 = BLM

SOURCE: BLM, Coeur d'Alene District, 1981.

APPENDIX 3-2

ENDANGERED, THREATENED, AND SENSITIVE WILDLIFE SPECIES IN NORTHERN IDAHO

Species	Scientific Name	Status
Bald Eagle	Haliaeetus leucocephalus	Endangered
Peregrine Falcon	Falco peregrinus	Endangered
Rocky Mountain Wolf	Canis lupis irremotus	Endangered
Grizzly Bear	Ursus arctos	Threatened
Northern Rough-Skinned Newt	Taricha granulosa	Sensitive
Wood Frog	Rana sylvatica	Sensitive
Painted Turtle	Chrysemes picta	Sensitive
Pygmy Shrew	Microsorex hoyi	Sensitive
Preble's Shrew	Sorex preblii	Sensitive
River Otter	Lutra canadensis	Sensitive
Wolverine	Gulo gulo	Sensitive
Canada Lynx	Felis lynx	Sensitive
Bobcat	Felis rufus	Sensitive
Woodland Caribou	Rangifer tarandus	Sensitive
Osprey	Pandion haliaetus	Sensitive
Gyrfalcon	Falco rusticolus	Sensitive
Merlin	Falco columbarius	Sensitive
Richardson's Blue Grouse	Dendragapus obscurus richardsonii	Sensitive
Sharp-Tailed Grouse	Pedioecentes phasianellus	Sensitive
Mountain Quail	Oreortyx pictus	Sensitive
Boreal Chickadee	Parus hudsonicus	Sensitive

SOURCE: BLM, Coeur d'Alene District, 1981.

APPENDIX 3-3
SUMMARY OF BLM BIG GAME AND LIVESTOCK DIET STUDIES
(SNAKE AND SALMON RIVER CANYONS)

Animal	Percent Grass	Percent Forb	Percent Shrub	Preferred Forage Species
Elk				
Fall	70.4	7.1	22.5	Sand dropseed, bluebunch wheatgrass, bitter cherry, annual bromes, Poa spp.
Winter	77.9	10.1	12.0	Bluebunch wheatgrass, Idaho fescue, sand dropseed, annual bromes, Poa spp., snowberry
Spring	----	----	----	No Data
Summer	9.1	52.8	38.2	Indian-wheat, western yarrow, Poa spp., Idaho fescue, elderberry, Lupinus spp.
Mule Deer				
Fall	54.7	10.3	35.0	Idaho fescue, sand dropseed, bitter cherry, elderberry, Poa spp., bluebunch wheatgrass
Winter	52.2	13.5	34.3	Idaho fescue, bluebunch wheatgrass, snowberry, annual bromes, Poa spp., bitter cherry
Spring	30.0	31.2	38.8	Idaho fescue, snowberry, bitter cherry, bluebunch wheatgrass, Poa spp., balsamroot
Summer	5.0	33.0	62.0	Idaho fescue, western yarrow, oceanspray, snowberry, elderberry, Lupinus spp.
White-Tailed Deer				
Fall	----	----	----	No Data
Winter	50.2	23.5	26.3	Idaho fescue, bluebunch wheatgrass, bitter cherry, sand dropseed, Lupinus spp., western yarrow
Spring	71.9	16.5	11.5	Idaho fescue, annual bromes, sand dropseed, bluebunch wheatgrass, Lupinus spp., balsamroot
Summer	----	----	----	No Data
Cattle				
Fall	76.3	9.4	14.3	Idaho fescue, sand dropseed, bluebunch wheatgrass, Poa spp., annual bromes, Lupinus spp.
Winter	69.0	12.6	18.4	Bluebunch wheatgrass, Idaho fescue, sand dropseed, annual bromes, snowberry, western yarrow
Spring	71.9	16.5	11.6	Bluebunch wheatgrass, Idaho fescue, annual bromes, sand dropseed, Poa spp., balsamroot
Summer	----	----	----	No Data
Sheep				
Fall	----	----	----	No Data
Winter	65.3	14.8	19.9	Annual bromes, bluebunch wheatgrass, Poa spp., Idaho fescue, elderberry
Spring	----	----	----	No Data
Summer	----	----	----	No Data

SOURCE: BLM, Coeur d'Alene District, 1979.

APPENDIX 4-1

PROJECTED PRODUCTION AND PROJECTED RANGE CONDITION METHODOLOGY

Little long term research has been done on quantifying the combined effects that grazing systems, stocking rates, and season-of-use have on improving range condition and trend in the Idaho fescue or Bluebunch wheatgrass habitat types of the Pacific Bunchgrass Region.

An effort will be made here to review pertinent literature and extrapolate from this literature the plausable effects the three grazing treatments - yearlong rest, deferred, and annual seasonal grazing - will have on altering poor, fair, and good range condition and downward trend. Primary emphasis will be placed on studies conducted in areas with similar plant composition, soil, and climate. Where individual study conditions deviate significantly from those in the EIS area, both the deviation and the perceived change in the studies conclusions will be noted. No qualification of the study data as it relates to plant physiology will be presented as these findings discuss basic plant needs. Ultimately, the projected change in vegetation condition class (therefore production) and trend will be the best estimate of professionals familiar with the area guided by appropriate literature.

Grazing treatments and systems are designed around the physiological needs of desirable forage species. The principal forage species found within the EIS area are bluebunch wheatgrass (Agropyron spicatum) and Idaho fescue (Festuca idahoensis). Bluebunch wheatgrass is more abundant and has attracted more attention to researchers of this region than Idaho fescue. The information presented here will reflect that bias.

The season of livestock use has a pronounced effect on the survival and vigor of forage plants. Plant vigor is related to the level of carbohydrate reserves in the plants' root system (herbaceous species) plus competition for space, moisture, and nutrients. Cook (1966) states, "Carbohydrate stores are used by the plant for respiration and slight growth during the winter, for initial growth and subsequent rapid growth during the spring, and for secondary growth in the fall." He goes on to say, "Respiration during the winter and the production of spring growth together may consume from 47 percent to as much as 75 percent of the carbohydrate reserves accumulated during the previous autumn." Parker and Sampson (1931) noted a temporary cessation of root growth in grasses following a single harvest of foliage with an immediate transfer of growth to the tops. They reported the greatest decrease in root yield was during the period of most rapid growth. Daubenmire (1940) found in his studies on the bunchgrass prairie of eastern Washington that, "In perennials such as Agropyron, the underground organs (roots) become weakened due to under-nourishment caused by the repeated removal of photosynthetic tissue, and a decline in vigor of such plants is gradual until the plant succumbs." In this same study Daubenmire found that, "When Agropyron was clipped to the ground at the height of the growing season in late spring, most of the clipped plants succumbed, and the next year the few survivors produced only small tufts of foliage with no inflorescence (flower stalks). On the other hand, grazing the Agropyron bunches to the ground during the summer and fall appears to have only slight detrimental influence on the plants."

Competition as it relates to the vigor of established forage plants plus establishment and survival of their seedlings is an important consideration in projecting the degree of range improvement. In a study on the combined effects herbage removal and competition has on forage production, Mueggler (1972) found that under partial competition unclipped bluebunch wheatgrass produced two times as much herbage and three times as many flower stalks as unclipped plants subject to full competition. He also found that only 80 percent of the unclipped plants growing under full competition flowered. He goes on to say, "Bluebunch wheatgass subjected to combined stress of heavy clipping (removing 50 percent of the herbage weight just before full emergence of the flower stalks) and full competition produced 43 percent less herbage and 95 percent fewer flower stalks the following year than were produced by unclipped plants growing under full competition." In a continuation of his studies, Mueggler (1975) discovered full competition with extreme clipping (explained as the heavy clipping treatment plus clipping regrowth to a uniform 8 centimeter stubble height when the control plants were at the seed-in-dough stage) was extremely detrimental to the vigor of bluebunch wheatgrass and Idaho fescue. By the end of 5 years of rest, total herbage production of bluebunch wheatgrass was only about two-thirds of the control plants. Mueggler (1975) presents an extrapolation of his data and suggests that total herbage production and number of flower stalks of bluebunch wheatgrass in extremely poor vigor should return to normal (control) in 8 to 10 years of protection. He states Idaho fescue will require 6 to 7 years of grazing protection to return to normal production. Also in this study Mueggler found bluebunch wheatgrass plants of intermediate vigor may require about 6 years of grazing protection to produce the same amount of herbage and flower stalks of plants of normal vigor. Mueggler's 1972 and 1975 studies were conducted in southwestern Montana at an elevation of 6,000 feet. The area receives 18 inches of annual precipitation, 78 percent of which falls during the growing season (April through September). The grasslands in Mueggler's study area receive a much greater percentage of the annual rainfall during the growing season than the grasslands in the EIS area. Due to this fact, the improvement in vigor following herbage removal should be more rapid in the Montana study than in the EIS area.

Seedling establishment of bluebunch wheatgrass has been shown to be hampered by competition of annual grasses and unpalatable perennials. A field study by Harris (1967) indicated that during the winter months seedlings of cheatgrass (Bromus tectorum) are able to extend their roots at a much greater rate than bluebunch wheatgrass seedlings. The cheatgrass seedlings, therefore, are able to draw soil moisture at a greater rate during the winter than bluebunch wheatgrass seedlings leaving the wheatgrass seedlings with little plant available water as they enter the summer drought periods. Harris' study area was the canyon grasslands of southeastern Washington, an area very similar to the EIS area.

Studies by Evans and Tisdale (1972) within the lower Salmon River Canyon found that red threeawn (Aristida longiseta), a perennial grass of low palatability, effectively competes with bluebunch wheatgrass on the gently sloping benches and alluvial terraces below 2,500 feet elevation. They found the primary reasons for the competative advantage of red threeawn include the following: a seedling which rapidly develops a deep root system; the ability to remain green and active during the dry summer period; and low palatability to grazing animals.

Evans and Tisdale revisited a site previously monitored by the U.S. Forest Service in 1932 in which red threeawn comprised 35 percent of the plant composition. They found that by 1966 red threeawn clearly dominated the plant community to the exclusion of bluebunch wheatgrass and sand dropseed.

Livestock distribution and grazing habits have an influence on grazing intensity and therefore the natural recovery rates of desirable native forage species on depleted ranges. Wood (1972) contends that, "If livestock are allowed to graze at will, they will seek out only those areas which are readily accessible. Decreasing the number without improving distribution only decreases the amount of area overused and increases the amount of area underutilized." To compound this problem, Martin (1978) has found that, "Range animals usually select new growth on a previously grazed plant, in preference to an ungrazed plant on which the new growth is mixed with the old." He goes on to say that, "Repeated grazing weakens the preferred plants on preferred parts of the range." Due to the steep slope - bench complex of much of the EIS area, livestock will continue to heavily utilize the moderately sloped areas and underutilize the steeper slopes.

In summary, heavy utilization of desirable forage plants throughout the growing season markedly reduces plant vigor. Repeated overuse causes lower forage production and could ultimately lead to the death of desired forage plants. Seedling establishment of bluebunch wheatgrass is greatly reduced in heavily grazed areas by competition with annual grasses and perennial grasses of low palatability. Areas which are heavily grazed will, because of their gentle slope, continue to be heavily grazed until a period of rest is provided.

Projected 20-Year Improvement Rates

The following 20-year improvement rates are estimates by specialists familiar with the area guided by the literature cited. A brief discussion is provided for each set of projected improvement rates found in Tables A through D. Table E is a listing of average livestock carrying capacities in the EIS area.

Table A provides the projected percentage changes in range condition under AMP grazing management. The projected rates of improvement are expected to accrue by implementation of the rest and deferred rotation grazing treatments plus improved livestock distribution from construction of range improvements. No changes are expected within 20 years on acres already in good condition. Acres in excellent condition, by definition, would not improve. All acres in downward trend would be reversed to static trend.

Table B shows the projected percentage changes in range condition under the Proposed Action's non-AMP grazing management. The projected improvement rates would be a result of adjustments in spring turn out dates and proper stocking levels. Improvements of acres in good and excellent condition would be the same as those discussed in the narrative for Table A. All acres in downward trend would remain in downward trend. Acres in upward trend would continue to improve.

Table C shows the projected percentage changes in range condition under the Resource Protection Alternative's non-AMP grazing management. The increased rate of improvement would be the combined result of Spring turnout dates being 2 weeks later than under the Propsed Action and adjustments in authorized livestock use. No improvement of acres in good or excellent condition is expected. No improvement of acres in downward trend is projected in 20 years. All acres in upward trend would continue to improve.

The projected percentage changes in range condition under the No Livestock Grazing Alternative are listed in Table D. The improvement rates are a result of the exclusion of livestock grazing. Competition between climax plant species and invader plant species plus the limited availability of seed source of climax plants in areas of poor condition are considered the limiting factors in reducing poor condition acres. The relatively slow improvement of range from good to excellent condition is the reason for the low improvement rate of good condition acres. All acres in downward trend would be reversed thereby placing them in static trend.

The average carrying capacity by condition class of grassland sites within the EIS area is shown in Table E. The carrying capacities are estimates by professionals familiar with the area guided by BLM weight-estimate surveys.

APPENDIX 4-1, TABLES A, B, C, D, and E

TABLE A
AMP MANAGEMENT
20-YEAR ECOLOGICAL CONDITION RESPONSE

Condition Class	% Change From Existing Situation
Poor	10% in Fair Condition
Fair	30% in Good Condition
Good	No Change
Excellent	No Change

TABLE B
NON-AMP MANAGEMENT
20-YEAR ECOLOGICAL CONDITION RESPONSE

Condition Class	% Change From Existing Situation
Poor	5% in Fair Condition
Fair	10% in Good Condition
Good	No Change
Excellent	No Change

TABLE C
NON-AMP MANAGEMENT-RESOURCE PROTECTION ALT.
20-YEAR ECOLOGICAL CONDITION RESPONSE

Condition Class	% Change From Existing Situation
Poor	7% in Fair Condition
Fair	15% in Good Condition
Good	No Change
Excellent	No Change

TABLE D
PROTECTION FROM LIVESTOCK GRAZING
20-YEAR ECOLOGICAL CONDITION RESPONSE

Condition Class	% Change From Existing Situation
Poor	25% in Fair Condition
Fair	50% in Good Condition
Good	25% in Excellent Condition
Excellent	No Change

TABLE E
AVERAGE CARRYING CAPACITY BY CONDITION CLASS

Condition Class	Carrying Capacity
Poor	10 acres/AUM
Fair	6 acres/AUM
Good	4 acres/AUM
Excellent	3 acres/AUM

SOURCE: BLM, Coeur d'Alene District, 1981.

Example A provides an illustration of how projected changes in range condition and production would occur. A 1,000-acre allotment managed under the Proposed Action's non-AMP management scheme (see Table B) has been chosen. The allotment has all acres in static trend. Should an allotment contain acres in upward trend, it would be added to the projected improvements in condition class. Allotments which contain acres in downward trend would have these acres subtracted from projected improvements in range condition class. Only acres suitable for livestock grazing are included in the computations.

EXAMPLE A

Ecological Condition Class Rating	Acres		% Change From Existing Situation		20 Year Improvement in Condition Class	Total Acres Within Condition Class in 20 Years
Poor	200	x	5% in Fair Condition	=	10 acres in Fair	190
Fair	400	x	10% in Good Condition	=	40 acres in Good	380
Good	300	x	No Change	=	No Change	330
Excellent	100	x	No Change	=	No Change	100

CURRENT CARRYING CAPACITY		PROJECTED CARRYING CAPACITY	
Ecological Condition Class Rating		Ecological Condition Class Rating	
Poor	$\frac{200 \text{ acres}}{10 \text{ acres/AUM}}$ = 20 AUMs	Poor	$\frac{190 \text{ acres}}{10 \text{ acres/AUM}}$ = 19 AUMs
Fair	$\frac{400 \text{ acres}}{6 \text{ acres/AUM}}$ = 67 AUMs	Fair	$\frac{380 \text{ acres}}{6 \text{ acres/AUM}}$ = 63 AUMs
Good	$\frac{300 \text{ acres}}{4 \text{ acres/AUM}}$ = 75 AUMs	Good	$\frac{330 \text{ acres}}{4 \text{ acres/AUM}}$ = 83 AUMs
Excellent	$\frac{100 \text{ acres}}{3 \text{ acres/AUM}}$ = 33 AUMs	Excellent	$\frac{100 \text{ acres}}{3 \text{ acres/AUM}}$ = 33 AUMs
	Total 195 AUMs		Total 198 AUMs

Projected Forage Increases from Timber Harvest

Projected increases in forage production in the conifer type will result from the seeding of forage species on new timber harvest areas. Approximately 80,489 acres of commercial timber lands in the BLM Coeur d'Alene District are scheduled for a 90-year timber rotation schedule. The annual harvest rate would, therefore, be 894 acres. Of the total commercial timber acres 5,240 acres would be suitable for livestock grazing following timber harvest. Refer to grazing suitability guidelines in Appendix 2-3 for a discussion of timber lands suitable for grazing.

The estimated carrying capacity of seeded timber lands is 2 to 6 acres per AUM; therefore, the mean of 4 acres per AUM will be used. A sustainable increase of 300 AUMs district-wide is expected in 20 years.

The method for determination of projected AUMs resulting from timber harvest is as follows:

Percent of commercial timber acres on which livestock grazing could occur:

$$\frac{\text{5,240 acres of commercial timber land suitable for livestock grazing}}{\text{80,489 acres of commercial timber land}} \times 100 = 6.5\%$$

Acres of timber land converted to suitable grazing land per year:

894 acres harvested per year x 6.5% = 58 acres

Annual increase in AUMs:

$$\frac{\text{58 acres/year}}{\text{4 acres/ AUM estimated carrying capacity}} = \text{15 AUM/year increase}$$

Maximum capacity of AUMs reached in 20 years district wide:

15 AUM/year x 20 years = 300 AUMs

Projected Forage Increases from Noxious Weed Spraying

The spraying of herbicides is conducted in the Coeur d'Alene District primarily for control of noxious weeds. An increase in forage usually follows the release from noxious weed competition. Treated areas would initially have a poor condition rating caused by an invasion of annual grasses and forbs. Due to the close proximity of many infested areas to a seed source of desirable plant species it is estimated that 10 percent of the sprayed areas in poor condition would improve to fair condition in 20 years.

Approximately 60 percent of the 2,900 acres infested with noxious weeds are on slopes suitable for livestock grazing. Refer to Appendix 2-8 for a discussion of district grazing suitability guidelines.

The 20-year increase in livestock forage resulting from noxious weed control - both biological and chemical - was computed as follows:

2,900 acres infested with noxious weeds x 60% of infested area is suitable for livestock grazing = 1,740 acres.

1,740 suitable acres x (10% of Poor Condition to Fair Condition) = 174 acres.

Treated acres in Poor Condition
Carrying capacity of Poor Condition range
$$\frac{1{,}566\text{ acres}}{10\text{ acres/AUM}} = 159\text{ AUMs}$$

Treated area in Fair Condition
Carrying capacity of Fair Condition range
$$\frac{174\text{ acres}}{6\text{ acres/ AUM}} = 29\text{ AUMs}$$

Total 186 AUMs

APPENDIX 4-2

CHANGES IN STREAM CONDITION FROM PROPOSED ACTION ALTERNATIVE AND OTHER ALTERNATIVES

(PROJECTED 20-YEAR IMPACTS)

			Proposed Action			Alternative 1			Alternative 2			Alternative 3		
Stream Name	Allotment Number	Stream Miles	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability
N. Fk. Mica Cr.	6002	.5	None	Excellent	Good	None	Excellent	Good	None	Excellent	Good	None	Excellent	Good
Pack River	6012	.1	None	Good	Good	None	Good	Good	None	Good	Good	None	Good	Good
Robinson Cr.	6016	1.0	None	Fair	Fair	None	Fair	Fair	None	Fair	Fair	None	Good	Good
Letour Cr.	6019	3.5	None	Good	Good	None	Good	Good	None	Good	Good	None	Good	Good
Gette Cr.	6105	.8	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair
	6198	1.7	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair
Wolf Cr.	6137	.4	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair
Divide Cr.	6203	2.1	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair
Capt. John Cr.	6289	2.1	Fair	Good	Good	Fair	Good	Good	Fair	Good	Good	Fair	Good	Good
S. Fk. Capt. John Cr.	6279	.7	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair
French Cr.	6240	1.4	Good	Excellent	Good	Good	Excellent	Good	Good	Excellent	Good	Good	Excellent	Good
Elkhorn Cr.	6240	1.0	Good	Excellent	Fair	Good	Excellent	Fair	Good	Excellent	Fair	Good	Excellent	Fair
Partridge Cr.	6240	3.2	Poor	Excellent	Fair	Poor	Excellent	Fair	Poor	Excellent	Fair	Poor	Excellent	Fair
Lake Cr.	6255	.4	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair
John Day Cr.	6281	2.8	Good	Fair	Good	Good	Fair	Good	Good	Fair	Good	Good	Fair	Good
S. Fk. John Day Cr.	6281	2.1	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair
E. Fk. John Day Cr.	6281	.8	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair
Slate Cr.	6277	.2	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Teicher Cr.	6177	.8	Poor	Good	Poor	Poor	Good	Poor	Poor	Good	Poor	Poor	Good	Fair
	6273	.4	Poor	Good	Poor	Poor	Good	Poor	Poor	Good	Poor	Poor	Good	Poor
Burnt Cr.	6123	1.5	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor	Excellent	Good
	6195	.5	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor	Excellent	Fair
Maloney Cr.	6119	.6	Poor	Good	Good	Poor	Good	Fair	Poor	Good	Good	Fair	Good	Good

APPENDIX 4-2 (Cont.)

CHANGES IN STREAM CONDITION FROM PROPOSED ACTION ALTERNATIVE AND OTHER ALTERNATIVES

(PROJECTED 20-YEAR IMPACTS)

			Proposed Action			Alternative 1			Alternative 2			Alternative 3		
Stream Name	Allotment Number	Stream Miles	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability
Cottonwood Cr.	6195	1.2	Good	Good	Good	Fair	Fair	Fair	Good	Good	Good	Good	Good	Good
Deer Cr.	6279	2.6	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor	Good	Fair
Eagle Cr.	6279	2.1	Fair	Good	Good	Fair	Fair	Fair	Fair	Good	Good	Fair	Good	Good
China Cr.	6279	.5	Poor	Good	Good	Poor	Fair	Fair	Poor	Good	Good	Fair	Good	Good
Trail Cr.	6245	1.4	Fair	Good	Fair	Poor	Poor	Poor	Fair	Good	Fair	Fair	Good	Fair
Hazard Cr.	6242	.7	Good	Excellent	Excellent	Good	Excellent	Excellent	Good	Excellent	Excellent	Good	Excellent	Excellent
Hard Cr.	6242	1.1	Good	Excellent	Good	Good	Excellent	Good	Good	Excellent	Good	Good	Excellent	Good
Little Elk Cr.	6212	.8	Fair	Excellent	Fair	Fair	Excellent	Fair	Fair	Excellent	Fair	Fair	Excellent	Fair
Fall Cr.	6249	.9	None	Excellent	Fair	None	Excellent	Fair	None	Excellent	Fair	None	Excellent	Fair
N. F. Rattlesnake Cr.	6241	.8	None	Good	Poor	None	Good	Poor	None	Good	Poor	None	Good	Poor
	6246	1.3	None	Fair	Poor	None	Fair	Poor	None	Fair	Poor	None	Fair	Poor
Hat Cr.	6241	1.9	Poor	Fair	Poor	Poor	Fair	Poor	Poor	Fair	Poor	Poor	Fair	Poor
Sheep Cr.	6247	2.2	Poor	Good	Poor	Poor	Good	Poor	Poor	Good	Poor	Poor	Good	Poor
	6262	.3	Poor	Good	Poor	Poor	Good	Poor	Poor	Good	Poor	Poor	Good	Poor
American R.	6233	1.5	Good	Good	Good	Fair	Fair	Good	Good	Good	Good	Good	Good	Good
	6261	2.5	Good	Good	Good	Fair	Fair	Fair	Good	Good	Good	Good	Good	Good
W. Fk. American R.	6173	1.4	Good	Fair	Good	Good	Fair	Good	Good	Fair	Good	Good	Fair	Good
Kirk's Fork Cr.	6261	.8	Fair	Good	Good	Fair	Good	Good	Fair	Good	Good	Fair	Good	Good
Little Elk Cr.	6212	.8	Fair	Fair	Fair	Poor	Poor	Poor	Fair	Fair	Fair	Fair	Good	Fair
Big Elk Cr.	6146	1.0	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair
Buffalo Gulch	6146	1.3	Fair	Good	Fair	Fair	Fair	Fair	Fair	Good	Fair	Fair	Good	Fair
	6233	1.2	Fair	Good	Fair	Fair	Fair	Fair	Fair	Good	Fair	Fair	Good	Fair

APPENDIX 4-2 (Cont.)
CHANGES IN STREAM CONDITION FROM PROPOSED ACTION ALTERNATIVE AND OTHER ALTERNATIVES
(PROJECTED 20-YEAR IMPACTS)

			Proposed Action			Alternative 1			Alternative 2			Alternative 3		
Stream Name	Allotment Number	Stream Miles	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability
	6239	.2	Fair	Good	Fair	Fair	Fair	Fair	Fair	Good	Fair	Fair	Good	Fair
Red R.	6233	.6	Excellent	Good	Good	Excellent	Good	Good	Excellent	Good	Good	Excellent	Good	Good
Maurice Cr.	6233	1.2	Poor	Fair	Poor	Poor	Fair	Poor	Poor	Fair	Poor	Poor	Good	Poor
Whiskey Cr.	6233	1.2	Fair	Good	Fair	Fair	Fair	Fair	Fair	Good	Fair	Fair	Good	Good
Mill Cr.	6243	.2	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair
Butcher Cr.	6190	.1	Poor	Fair	Poor	Poor	Fair	Poor	Poor	Fair	Poor	Poor	Fair	Poor
Sally Ann Cr.	6288	.2	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair
Threemile Cr.	6205	.3	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair
Cottonwood Cr.	6160	.2	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Good	Fair
Lawyer Cr.	6101	1.2	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair
	6185	.3	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair
	6189	.2	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair
Sixmile Cr.	6163	.3	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
Lolo Cr.	6142	.6	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
	6143	1.0	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
	6151	1.3	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
	6157	.8	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
	6167	2.1	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
	6214	2.1	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
	6224	.6	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
	6271	1.0	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Big Cr.	6158	.9	Fair	Good	Fair	Fair	Fair	Fair	Fair	Good	Fair	Fair	Good	Good

APPENDIX 4-2 (Cont.)
CHANGES IN STREAM CONDITION FROM PROPOSED ACTION ALTERNATIVE AND OTHER ALTERNATIVES
(PROJECTED 20-YEAR IMPACTS)

			Proposed Action			Alternative 1			Alternative 2			Alternative 3		
Stream Name	Allotment Number	Stream Miles	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability	Potential For Anadromous Production	Overall Streambank Stability	Overall Fish Habitat Suitability
Little Canyon Cr.	6100	.5	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Good
	6152	2.2	Fair	Fair	Fair	Poor	Poor	Poor	Good	Good	Good	Good	Good	Good
Big Canyon Cr.	6155	.4	Fair	Fair	Fair	Fair	Poor	Fair	Fair	Fair	Fair	Fair	Good	Fair
	6206	2.3	Fair	Fair	Fair	Poor	Poor	Poor	Fair	Fair	Fair	Fair	Good	Fair
	6209	.3	Fair	Fair	Fair	Poor	Poor	Poor	Fair	Fair	Fair	Fair	Good	Fair
	6220	.9	Fair	Fair	Fair	Poor	Poor	Poor	Fair	Fair	Fair	Fair	Good	Fair
Potlatch Cr.	6120	.7	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
	6276	.3	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
Little Potlatch Cr.	6207	.3	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
Middle Potlatch Cr.	6180	.1	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
Lapwai Cr.	6222	.1	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair

SOURCE: BLM, Coeur d'Alene District, 1981.

APPENDIX 4-3
ECONOMICS

ADJUSTING FOR INFLATION

When comparing income earned in various years, the effect of inflation must be taken into account. In order to do this, one or both of the income figures must be inflated or deflated to a common year. In this EIS, comparisons were made by inflating the 1974 income figures to 1978 levels. This is done by using the consumer price index (CPI). This index measures the relative level of prices against some base year which is presently 1967. In 1978 the index stood at 195.4. In 1974 the index stood at 147.7. This means that prices rose roughly 32 percent between 1974 and 1978. In order to make 1974 prices equivalent to 1978 prices, they must be increased by 32 percent. Any difference between the two prices not accounted for by this process would be the actual growth (or decline) in the economy over that period of time. Table A shows how this was done.

APPENDIX 4-3, TABLE A
ADJUSTING FOR INFLATION ($000's)

Category	Actual 1974 Income	CPI/Adjustment 1/ Factor	Adjusted 1974 Income	Actual 1978 Income	Real Change
Total	$377,189	1.32295	$499,002	$507,059	+$ 8,057
Farm	91,087	1.32295	120,504	48,117	-$72,387
Non-Farm	286,102	1.32295	378,499	458,942	+$80,443
Private	221,856	1.32295	293,504	360,848	+$67,344
Government	64,246	1.32295	84,994	98,094	+$13,100

1/ From the Consumer Price Index, Presidents Council of Economic Advisors, Economic Report of the President, January 1980.

SOURCE: BLM, Coeur d'Alene District, 1981.

RANCHER INCOME CALCULATIONS

Ranch budgets were not prepared for this EIS. This was done primarily becuse the few number of AUMs involved and the diversity of operations in the EIS area would make it difficult to get representative budgets.

Instead of ranch budgets, income changes were based on the income contribution of an AUM of livestock feed, regardless of source. The 1974 census of agriculture estimated the number of cattle and sheep in the economic region to be 124,133 and 18,822 respectively. This number of livestock would require 1,534,764 AUMS to feed annually. Ranch income in the five-county region was then calculated for the 6-year period of 1972 to 1977. The average livestock-related income during this 6-year period was $8.5 million. This would mean that each AUM of feed contributed $5.56 of income to the livestock industry. This was the figure used in the EIS to determine income changes from changes in AUM levels.

RANGE IMPROVEMENTS AND MAINTENANCE

In order to determine the impact on the local economy of installing and maintaining range improvements, the amount expected to be spent in the local economy must be determined. First, the total cost of each type of range improvement had to be determined. Once this was done, the total cost had to be broken down into labor and material costs. Then it had to be determined how much of these various costs would be incurred locally. This was done by district personnel with knowledge of range improvement construction and past purchasing patterns making estimates of how these costs would be distributed. These resulted in a set of assumptions which are displayed in Table B.

DYNAMIC REGIONAL ANALYSIS MODEL (DYRAM)

Direct impacts (such as changes to ranch income and changes in the construction industry) cause other impacts to occur. For instance, when ranchers have less income, they purchase fewer goods and services in town, thus lowering the merchant's income. This is called the secondary impact. In order to analyze these impacts, a computer model is used, which estimates these impacts. It is called the Dynamic Regional Analysis Model (DYRAM). The direct income impacts are input and the model calculates direct employment and secondary income and employment impacts. The model uses industry earnings in combination with a 20-sector industry expected transaction matrix compiled from the national input-output table in order to estimatre net exports or imports by industry for the economy of a given area. Multipliers are computed; they refer to impacts on personal income, not business income. Multipliers are the ratio between the ultimate increase of income arising from an increment of investment and the initial new investment itself. For example, an initial income increase in the livestock industry creates additional (or secondary) increases in both the livestock and other sectors of the economy. A multiplier estimates what this addition would be. With initial income increased by $1,000 and a multipiler of 1.5, the total income increase would be $1,500, with $500 being the additional increase estimated by the multiplier. The detailed mathematical explanation of DYRAM may be found in the _Annals of Regional Science_, November 1975, pp. 44-50.

DISCOUNTING

Since each alternative represents differing mixes of livestock use and construction activities, it was decided to determine the net present worth for each alternative. Present worth is the amount of money today which will become a given amount at a stated time in the future. For example, at 10 percent interest $100 will grow to $110 in one year; therefore, the present worth of $110 one year from now at 10 percent interest is $100. If the end product is a series of payments, the present worth is the amount that will result in the sum of the series. The net present worth of each alternative, then, is the sum of the present worths of the income streams associated with livestock, construction, etc. Discounting is the procedure whereby the present worth of future income is determined. The concept is the converse of growth in value due to accrued interest. The proposed action alternative and the other alternatives have been discounted to reflect their present worth with an assumed interest rate of 7.375 percent (established by the Water Resources Council for use by federal agencies in FY 1981). Table C shows the discounting procedure for the loss of direct rancher income in the proposed action alternative.

APPENDIX 4-3, TABLE B
RANGE IMPROVEMENT CONSTRUCTION AND MAINTENANCE ASSUMPTIONS
PROPOSED ACTION

	Springs	Catchments	Fences	Cattleguards	Fence-Stream Protection	Land Treatment
Total Cost						
Unit	$ 1,000/ea	$ 4,000/ea	$ 2,500/mi	$ 1,750/ea	$3,500/mi	$ 22/acre
Total	$30,000	$28,000	$63,750	$17,500	$9,450	$41,800
Labor						
Percent of Total	80	80	50	25	85	25
Total Labor	$24,000	$22,400	$31,875	$ 4,375	$8,033	$10,450
Percent Spent Locally	30	30	30	30	30	30
Total Spent Locally	$ 7,200	$ 6,720	$ 9,563	$ 1,313	$2,410	$ 3,135
Materials						
Percent of Total	20	20	50	75	15	75
Total Materials	$ 6,000	$ 5,600	$31,875	$13,125	$1,417	$31,350
Percent Spent Locally	10	10	10	10	10	10
Total Spent Locally	$ 600	$ 560	$ 3,188	$ 1,313	$ 142	$ 3,135
Total Spent Locally						
Labor	$ 7,200	$ 6,720	$ 9,563	$ 1,313	$2,410	$ 3,135
Materials	$ 600	$ 560	$ 3,188	$ 1,313	$ 142	$ 3,135
Total	$ 7,800	$ 7,280	$12,751	$ 2,626	$2,552	$ 6,270
Maintenance Annual Cost						
Unit	$ 50/ea	$ 50/ea	$ 80/mi	$ 50/ea	$ 50/mi	0
Total	$1,500	$350	$2,040	$500	$135	0
Percent Spent Locally	60	60	60	60	60	60
Total Spent Locally	$ 900	$210	$1,224	$300	$ 81	0

SOURCE: BLM, Coeur d'Alene District, 1981.

APPENDIX 4-3, TABLE C
DISCOUNTING PROCEDURE
PROPOSED ACTION

Year	Direct Rancher Income	Discount Factor	Present Worth
1	-$3,219	.9313	-$2,998
2	- 3,125	.8673	- 2,710
3	- 2,802	.8078	- 2,264
4	- 2,480	.7523	- 1,866
5	- 2,152	.7006	- 1,508
6	- 1,674	.6525	- 1,092
7	- 1,195	.6077	- 726
8	- 717	.5659	- 408
9	- 217	.5271	- 114
10	+ 284	.4909	+ 139
11	+ 467	.4572	+ 214
12	+ 651	.4258	+ 277
13	+ 834	.3965	+ 331
14	+ 1,023	.3693	+ 378
15	+ 1,212	.3439	+ 417
16	+ 1,396	.3203	+ 447
17	+ 1,579	.2983	+ 471
18	+ 1,790	.2778	+ 497
19	+ 2,002	.2587	+ 518
20	+ 2,213	.2410	+ 533

Total Net Present Worth = -$9,464

SOURCE: BLM, Coeur d'Alene District, 1981.

GLOSSARY

GLOSSARY

Acre Foot: Volume of water that would cover one acre to a depth of one foot, equal to 43,560 cubic feet or approximately 326,000 gallons.

Active Grazing Preference: That portion of the total grazing preference that could be licensed and used should the livestock operator desire.

Actual Use: The use made of forage on any area by livestock and/or game animals without reference to permitted or recommended use.

Allotment Management Plan (AMP): A documented program which applies to livestock operators on the public lands, which is prepared in consultation with the lessee(s) involved and which: 1) prescribes the manner in and extent to which livestock operations will be conducted in order to meet the multiple-use, sustained-yield, economic, and other needs and objectives as determined for the public lands through land use planning; 2) describes the type, location, ownership, and general specifications for the range improvements to be installed and maintained on the public lands to meet the livestock grazing and other objectives of land management; and 3) contains such other provisions relating to livestock grazing and other objectives as may be prescribed by the authorized officer consistent with applicable law.

Ambient Air: Any unconfined portion of the atmosphere; the outside air.

Anadromous Fish: Fish which migrate from the sea to breed in fresh water. Their offspring return to the sea.

Animal Unit Month (AUM): The amount of forage required to sustain one cow (1,000 lbs.) with one calf under 6 months of age or their equivalent for one month. For this EIS an AUM represents 800 pounds (air dried) of palatable forage.

Aquifer: A geologic unit that contains water and that can deliver it to wells, springs, or seeps.

Archeological Resources: The physical evidence of past human occupation which can be used to reconstruct the culture of past peoples. The archeological record is usually expressed in the form of districts, sites, structures, and objects.

Area of Critial Environmental Concern (ACEC): An area within the public lands where special management attention is required (when such areas are developed or used, or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.

Artifact: Any object made, modified, or used by man, usually movable.

Biomass: The total mass or amount of living organisms in a particular area expressed quantitatively.

Biome: A major biotic unit consisting of plant and animal communities having similarities in form and environmental conditions.

Bureau Planning System: A process used in the BLM to establish land use allocation, constraints, and objectives for various categories of public land use.

Canopy Cover: The aerial foliage in a vegetation layer shading vegetation in lower layers.

Carrying Capacity: The maximum stocking rate possible without inducing damage to vegetation or related resources. It may vary from year to year on the same area due to fluctuating forage production.

Climax: The highest ecological development of a plant community capable of perpetuation under the prevailing climatic and edaphic conditions.

Community: A group of one or more populations of plants and animals in a common spatial arrangement.

Competitive AUM: The cattle AUM equivalent of competitive forage requirements for other grazing hoofed animals.

Consumer Price Index (CPI): A statistical measure of changes in prices of goods and services.

Critical Habitat: That habitat considered by the Secretary of the Interior to be necessary for the normal needs or survival and recovery of listed Threatened or Endangered Species. It may also include habitat not currently occupied into which a listed species could expand.

Cultural Resources: Those fragile and nonrenewable remains of human activity, occupation, or endeavor reflected in districts, sites, structures, buildings, objects, artifacts, ruins, works of art, architecture, and natural features that were of importance in human events. These resources consist of 1) physical remains, 2) areas where significant human events occurred--even though evidence of the event no longer remains, and 3) the environment immediately surrounding the actual resource. Cultural resources, including both prehistoric and historic remains, represent a part of the continuum of events from the earliest evidences of man to the present day.

Discounting: The procedure whereby the present worth of future income is determined. The concept is the converse of growth in value due to accrued interest.

Dynamic Regional Analysis Model (DYRAM): The model used in determining secondary impacts. It uses industry earnings in combination with a 20-sector industry-expected transition matrix, compiled from the national input-output table, in order to estimate net exports or imports by industry for the economy of a given area. Multipliers for each industry are computed; they refer to impacts on personal income, not business income. The detailed mathematical explanation of the model may be found on file at the Boise District Office or in the Annals of Regional Science, November 1975, pp. 44-50.

Ecological Condition: The present state of vegetation on an ecological site in relation to the climax (natural potential) plant community for that site.

Endangered Species: Those species officially designated by the Fish and Wildlife Service through publication in the Federal Register as being in danger of extinction throughout a significant portion of their range. The Endangered Species Act of 1973 requires that critical habitat for endangered species be delineated and enjoins Federal agencies from taking actions within such designated critical habitat that would have a significant adverse impact on the endangered species.

Environmental Assessment (EA): A systematic environmental analysis of site-specific BLM activities. Used to determine whether such activities have a significant effect on the quality of the human environment and whether a formal environmental statement is required.

Ephemeral Drainages: Stream drainages which have water flowing in them for only a short period during the year.

Erosion: The wearing away of the land surface by wind, water, and other geological agents.

Flow: The volume of water passing a given point in a specified period of time.

Forage: All browse and herbaceous foods that are available to grazing animals.

Groundwater: Subsurface water in the zone of saturation.

Habitat Type: The area of land potentially capable of producing similar plant communities at climax.

Historical Resources: All evidence of human activity that date from historic (i.e., recorded history) periods. Historic resources are cultural resources and may be considered archeological resources when archeological work is involved in their identification and interpretation.

Infiltration Rate: The maximum rate at which the soil, under various specified condtions, can absorb falling rain or melting snow.

Interest: The price paid for the use of money or captial. Interest compensates the supplier of money or capital for uncertainty, for alternative uses of his capital, and for the loss of purchasing power due to inflation. Interest represents the time value of money.

Invertebrates: Animals without backbones.

Lithic Materials: Implements or tools made from stone.

Management Framework Plan (MFP): Land use plan for public lands which provides a set of goals, objectives, and constraints for a specific planning area to guide the development of detailed plans for the management of each resource.

Multiplier: The ratio between the ultimate increase of income arising from an increment of investment and the initial new investment itself. For example, an initial income increase in the livestock industry creates additional increases in both the livestock and other industries from added feed, seed, clothing, purchases, etc. A multiplier estimates what this addition would be. With initial income increased by $1,000 and a multiplier of 1.5 the total income would be $1,500 with $500 being the additional increase estimated by the multiplier.

National Register of Historic Places (National Register): Established by the Historic Preservation Act of 1966. A listing maintained by the National Park Service of architectural, historical, archeological, and cultural sites of local, state, or national significance. Sites are nominated to the Register by the states and by Federal agencies. Copies of the National Register are available from the Superintendent of Documents, USGPO, Washington, D.C. 20402.

Nonattainment Area: A designated area that does not meet ambient air quality standards.

Nonpoint Source Pollution: Pollution caused by the introduction of materials from diffuse sources (i.e., sediment, nutrients), or from a nautral or manmade alteration in the stream system.

Noxious Weed: A weed arbitrarily defined by law as being expecially undesirable, troublesome, or difficult to control.

Phenology: The science concerned with periodic biological events in their relation to seasonal climatic changes. Plant phenology refers to dates of sprouting, flowering, seed production, and regrowth, as well as other observable occurrences in plant development.

Photosynthetic: The ability to synthesize chemical compounds with the aid of radient energy.

Prehistoric Resources: All evidences of human acitivity that pre-date recorded history and can be used to reconstruct lifeways and culture history of past peoples. These include sites, artifacts, environmental data, and all other relevant information and the context in which they occur.

Present Worth: An amount of money today which will become a given amount at a stated time in the future. For example, at 10 percent interest $100 will grow to $110 in one year; therefore, the present worth of $100 one year from now at 10 percent interest is $100. If the end product is a series of payments, the present value is the amount that will result in the sum of that series.

Range Condition: The current productivity of a range relative to what that range is naturally capable of producing.

Range Condition Class: One of a series of arbitrary categories used to classify range condition and in the case of this document are expressed as either excellent, good, fair, or poor.

Range Site: A distinctive kind of rangeland, which in the absence of abnormal disturbance and physical site deterioration, has the potential to support a native plant community typified by an association of species different from that of other sites.

Recreation Opportunity Class: The level of recreation development which controls the type of recreational opportunities possible on a given area. Classes are usually determined by the development of roads or access within an area.

Riparian: Situated on or pertaining to the bank of a river, stream, or other body of water. Normally used to refer to the plants of all types that grow along streams, around springs, etc.

Runoff: That portion of the precipitation on a drainage area that is discharged from the area in stream channels, including both surface and subsurface flow.

Sediment Yield: The amount of sediment moved into a water course. The sediment yield is usually less than erosion rates which are expressing soil loss.

Seral Stages: Communities of plants that occupy an area as succession progresses toward climax.

Series: A group of habitat types with the same climax tree species.

State Historic Preservation Officer (SHPO): The official within each state, authorized by the state at the request of the Secretary of the Interior, to act as a liaison for purposes of implementing the National Historic Preservation Act of 1966.

Succession: The orderly process of community change. Process by which one plant community will succeed another over time given the same climatic conditions.

Threshold: A point (value) on a continuim that when exceeded causes a significant impact.

Trade Area: The geographic area in which people make a majority of their purchases for goods and services.

Trend: The direction of change in range condition.

Ungulate: Any of the group ungulata, which consists of the hoofed mammals, of which most are herbivorous and many are horned.

Unit Resource Analysis (URA): A BLM planning document which contains a comprehensive inventory and analysis of the physical resources and an analysis of their potential for development within a specified geographic area.

Universal Soil Loss Equation: An equation used for the design of water erosion control systems: A = (R)(K)(L)(S)(P)(C) wherein A = average annual soil loss in tons per acre per year; R = rainfall factor; K = soil erodibility factor; L = length of slope; S = percent of slope; P = conservation practice factor; and C = cropping and management factor.

Utilization: The proportion of current year's forage production that is consumed or destroyed by grazing animals.

Visual Resource: The land, water, vegetation, animals, and other features that are visible on all public lands.

Visual Resource Management Class: The degree of alteration that is acceptable within the characteristic landscape. It is based upon the physical and sociological characteristics of any given homogeneous area.

Water Yield: The amount of water discharged in streams.

Wild and Scenic River: Any free-flowing stream designated and authorized for inclusion in the National Wild and Scenic Rivers System as provided by the Wild and Scenic Rivers Act of October 1968 (P.L. 90-542).

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INDEX

INDEX

AIR QUALITY
3-1, 4-1, 4-2

ALLOTMENT MANAGEMENT PLANS, AMPs, (Intensive Management)
S-1, S-2, 2-2, 2-3, 2-5, 2-8, 2-10, 2-12, 2-13, 2-14, 2-16, 2-18, 4-12, 4-17

NON-ALLOTMENT MANAGEMENT PLANS, NON-AMPs, (Less Intensive Management)
S-1, 2-3, 2-5, 2-8, 2-12, 2-13

ALTERNATIVES INCLUDING THE PROPOSED ACTION
S-1, S-2, S-3, 1-1, 2-18, 2-20, 4-2, 4-6, 4-8, 4-13, 4-15, 4-16, 5-1

PROPOSED ACTION ALTERNATIVE
S-1, S-2, S-3, S-4, 1-1, 2-1, 2-2, 2-9, 2-10, 2-13, 2-15, 2-20, 3-1, 3-10, 4-3, 4-4, 4-5, 4-6, 4-8, 4-12, 4-13, 4-17, 4-18, 4-22, 4-23, 4-24, 4-25, 4-27, 4-28

ALTERNATIVE 1 (No Action - Current Management)
S-1, S-2, S-3, S-4, 1-1, 2-14, 2-20, 4-3, 4-17, 4-18, 4-19, 4-20, 4-21, 4-22, 4-23, 4-24

ALTERNATIVE 2 (Resource Protection)
S-1, S-2, S-4, 1-1, 2-15, 2-20, 4-3, 4-17, 4-22, 4-25, 4-26

ALTERNATIVE 3 (No Livestock Grazing)
S-1, S-3, S-4, 1-1, 2-16, 2-20, 4-3, 4-27, 4-28, 4-29, 4-30, 4-31

ANADROMOUS FISHERIES
1-1, 2-2, 2-22, 3-14, 3-15, 3-16, 4-25, 4-30

ANIMAL UNIT MONTHS (AUMs)
S-1, S-2, S-3, S-4, 2-1, 2-2, 2-3, 2-13, 2-14, 4-3, 4-8, 4-11, 4-12, 4-17, 4-18, 4-19, 4-20, 4-21, 4-22, 4-23, 4-24, 4-25, 4-26, 4-27, 4-28, 4-30, 4-31

ANNUAL SEASONAL GRAZING
S-1, 2-5, 2-6, 4-4, 4-5, 4-12

AUATIC WILDLIFE
S-4, 2-2, 2-13, 2-22, 3-14, 3-15, 4-13, 4-21, 4-25, 4-30

AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)
3-1, 4-1

BUFFER GUIDELINES
2-12

CLIMATE
3-1

CULTURAL RESOURCES
S-3, S-4, S-5, 2-23, 3-16, 3-17, 4-16, 4-21, 4-25, 4-30

DEFERRED GRAZING
S-1, 2-5, 4-2, 4-4, 4-5, 4-11

DRIFT FENCE
S-2, 2-6, 4-11, 4-22

ECONOMICS
1-1, 2-20, 2-23, 3-19, 4-17, 4-18, 4-22, 4-26, 4-31

EMPLOYMENT
4-18, 4-22, 4-26, 4-31

EROSION
S-3, 2-12, 2-20, 3-1, 3-3, 3-4, 4-4, 4-15, 4-19, 4-21, 4-25, 4-27, 4-30

FEDERAL LAND POLICY AND MANAGEMENT ACT (FLPMA)
2-13

FISHERIES HABITAT
S-3, 2-16, 2-22, 3-14, 3-15, 4-13, 4-16, 4-21, 4-25, 4-30

FORAGE ALLOCATION
1-1, 2-2, 2-3, 2-4, 2-6, 2-10, 2-11, 2-14, 2-16, 2-23, 4-3, 4-4, 4-8, 4-11, 4-12, 4-13, 4-16, 4-17, 4-18, 4-21, 4-22, 4-23

FORAGE PRODUCTION
S-3, 2-1, 2-14, 2-15, 2-20, 4-6, 4-8, 4-12, 4-22

GRAZING TREATMENTS
2-5, 2-6, 2-12, 2-13, 4-2, 4-4, 4-5, 4-6, 4-8, 4-11, 4-12, 4-15, 4-17, 4-19, 4-21, 4-23, 4-25, 4-27

HABITAT MANAGEMENT PLAN (HMP)
2-19

HABITAT TYPE
3-6

HERBICIDES
S-2, 2-10, 2-14

HISTORIC RESOURCES
S-3, 3-16, 3-17, 4-16

INCOME
3-20, 4-17, 4-18, 4-22, 4-26, 4-31

LAND TREATMENTS
S-1, 2-2, 2-8, 2-10, 2-11, 2-12, 2-14, 2-16, 4-4, 4-6, 4-11, 4-12, 4-15, 4-17, 4-18, 4-20, 4-23, 4-26, 4-27, 4-29, 4-31

INDEX (Cont.)

MINING
3-1, 3-13, 3-14, 3-17, 4-1

MITIGATING MEASURES
4-16

NOXIOUS WEEDS
S-2, 2-8, 2-9, 2-10, 2-14, 2-16, 2-17, 2-19, 2-20, 3-8, 4-4, 4-6, 4-19, 4-21, 4-22, 4-23, 4-27, 4-28, 4-31

POISONOUS PLANTS
3-8, 3-9

PREHISTORIC RESOURCES
S-3, 3-16, 3-17, 4-16

RANGE CONDITION
S-3, S-4, 2-1, 2-2, 2-3, 2-12, 2-13, 2-20, 2-21, 3-1, 3-6, 3-7, 3-11, 3-13, 4-3, 4-4, 4-5, 4-6, 4-8, 4-11, 4-12, 4-13, 4-19, 4-20, 4-21, 4-23, 4-24, 4-27, 4-28, 4-29, 4-30

RANGE DEVELOPMENT
2-13, 4-16, 4-19, 4-25

RANGE IMPROVEMENT
2-2, 2-8, 2-9, 2-11, 2-12, 2-14, 2-16, 2-17, 2-23, 3-1, 3-17, 4-2, 4-3, 4-5, 4-6, 4-11, 4-12, 4-15, 4-18, 4-19, 4-20, 4-23, 4-26, 4-27

RANGE TREND
S-3, S-4, 2-2, 2-5, 2-12, 2-13, 2-21, 3-6, 3-7, 3-8, 4-2, 4-5, 4-8, 4-19, 4-23, 4-28

RESIDENT FISHERIES
3-14, 3-15, 3-16

REST TREATMENT
S-1, 2-5, 4-2, 4-5, 4-8, 4-11, 4-12

RIPARIAN VEGETATION
3-6

SCOPING
1-1

SEDIMENT
3-1, 4-16, 4-21, 4-30

SENSITIVE SPECIES
3-10

SOCIAL VALUES
1-1, 3-1, 4-1

INDEX (Cont.)

STATE HISTORIC PRESERVATION OFFICER (SHPO)
S-3, 2-19, 3-17, 4-16, 5-1

STREAM BANK STABILITY
2-13, 2-22, 3-14, 4-13, 4-21, 4-25, 4-30

TAYLOR GRAZING ACT (Section 15)
2-13

TERRESTRIAL WILDLIFE
S-3, S-4, 2-15, 2-19, 2-21, 2-22, 3-9, 4-8, 4-19, 4-23, 4-28

THREATENED AND ENDANGERED
2-2, 2-11, 2-21, 3-9, 3-10, 3-16, 4-6

TIMBER HARVEST
2-11, 2-12, 2-14, 4-2, 4-21

TIMBER MANAGEMENT
2-1, 2-11, 3-1, 4-2

TURNOUT DATES
3-19, 4-4, 4-5, 4-17, 4-22, 4-23, 4-25

VEGETATION ALLOCATION
2-2, 4-22, 4-27

VISUAL RESOURCE MANAGEMENT (VRM)
2-11, 3-1, 4-2, 4-27

WATER QUALITY
S-3, 2-2, 2-13, 2-19, 2-21, 3-4, 3-16, 4-4, 4-13, 4-16, 4-19, 4-30

WATER RESOURCES
2-21, 3-1, 4-3, 4-19, 4-22, 4-27

WATERSHED
S-1, S-2, S-3, S-4, 2-5, 2-10, 2-12, 2-13, 2-16, 2-20, 2-21, 4-3, 4-4, 4-19, 4-22, 4-27

WATER YIELD
2-21, 3-4, 4-3, 4-4

WILD AND SCENIC RIVER SYSTEM
3-17, 3-19

WILDERNESS
2-12, 3-1, 4-2

YEARLONG REST
4-4, 4-5

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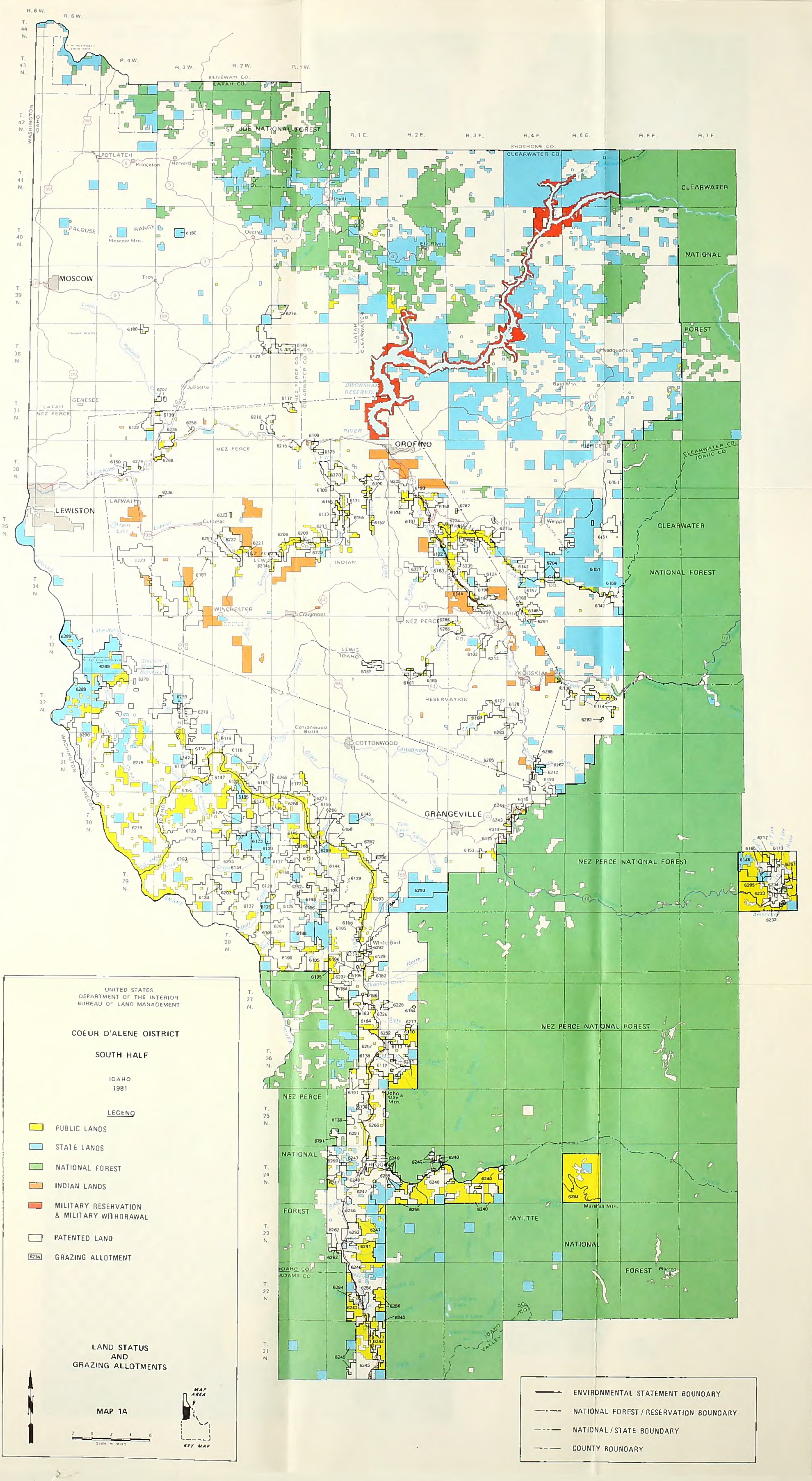

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🟩 NATIONAL FOREST

🟧 INDIAN LANDS

🟥 MILITARY RESERVATION & MILITARY WITHDRAWAL

☐ PATENTED LAND

6234 GRAZING ALLOTMENT

LAND STATUS AND GRAZING ALLOTMENTS

MAP 1A

ENVIRONMENTAL STATEMENT BOUNDARY

NATIONAL FOREST / RESERVATION BOUNDARY

NATIONAL / STATE BOUNDARY

COUNTY BOUNDARY

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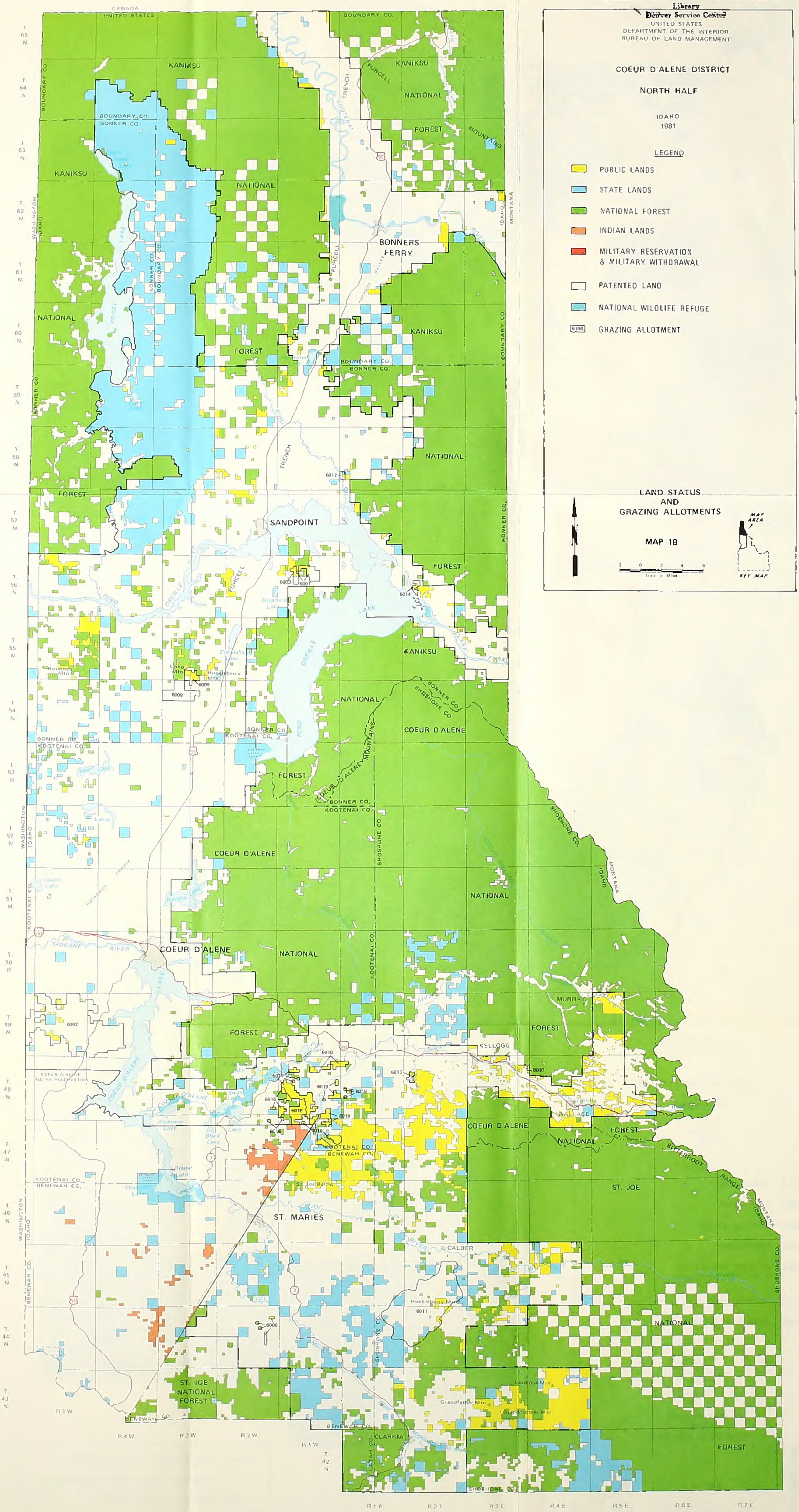
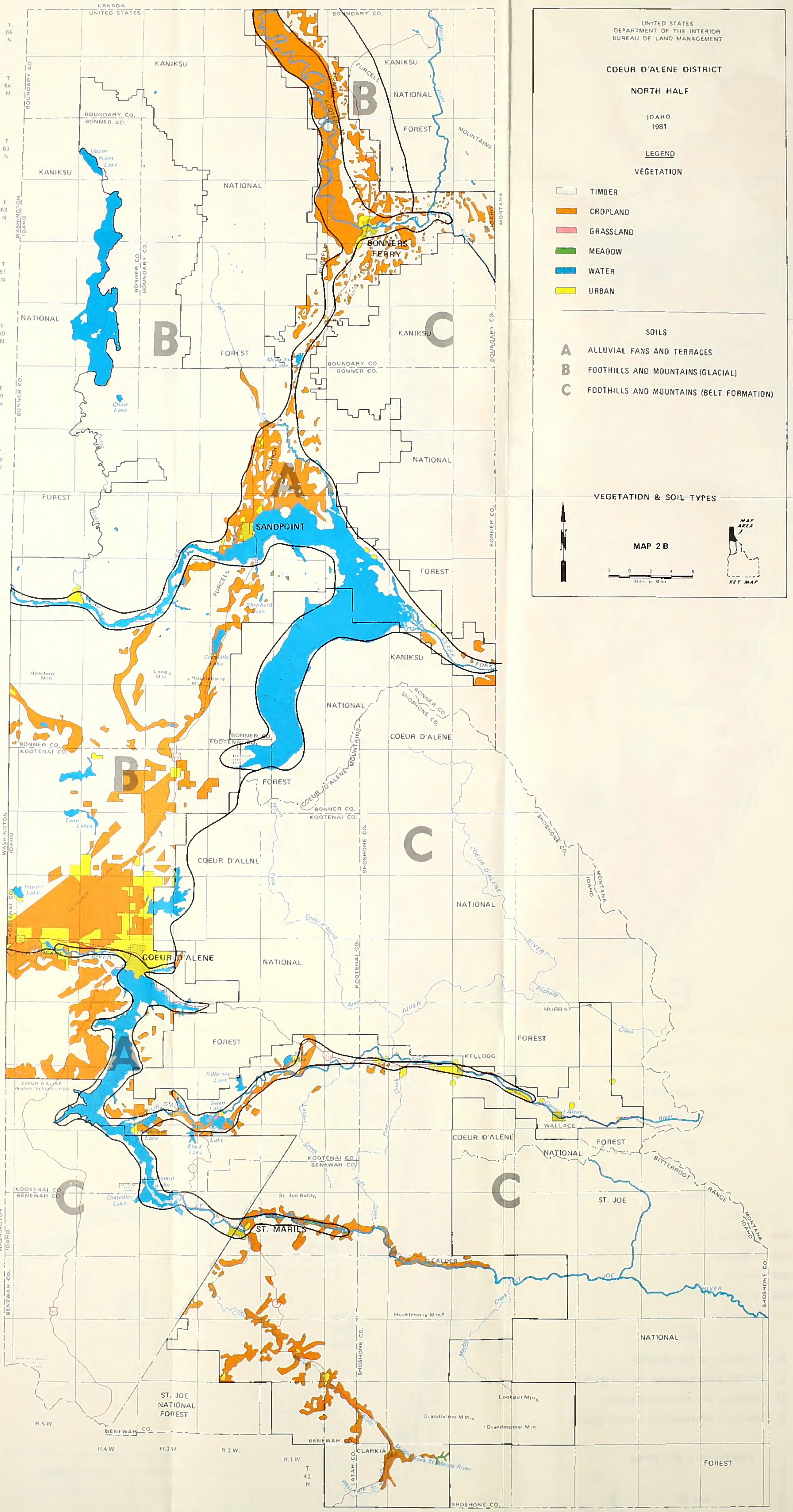
- 🟨 PUBLIC LANDS
- 🟦 STATE LANDS
- 🟩 NATIONAL FOREST
- 🟧 INDIAN LANDS
- 🟥 MILITARY RESERVATION & MILITARY WITHDRAWAL
- ☐ PATENTED LAND
- 🟦 NATIONAL WILDLIFE REFUGE
- 6106 GRAZING ALLOTMENT

LAND STATUS AND GRAZING ALLOTMENTS

MAP 1B

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LEGEND

VEGETATION

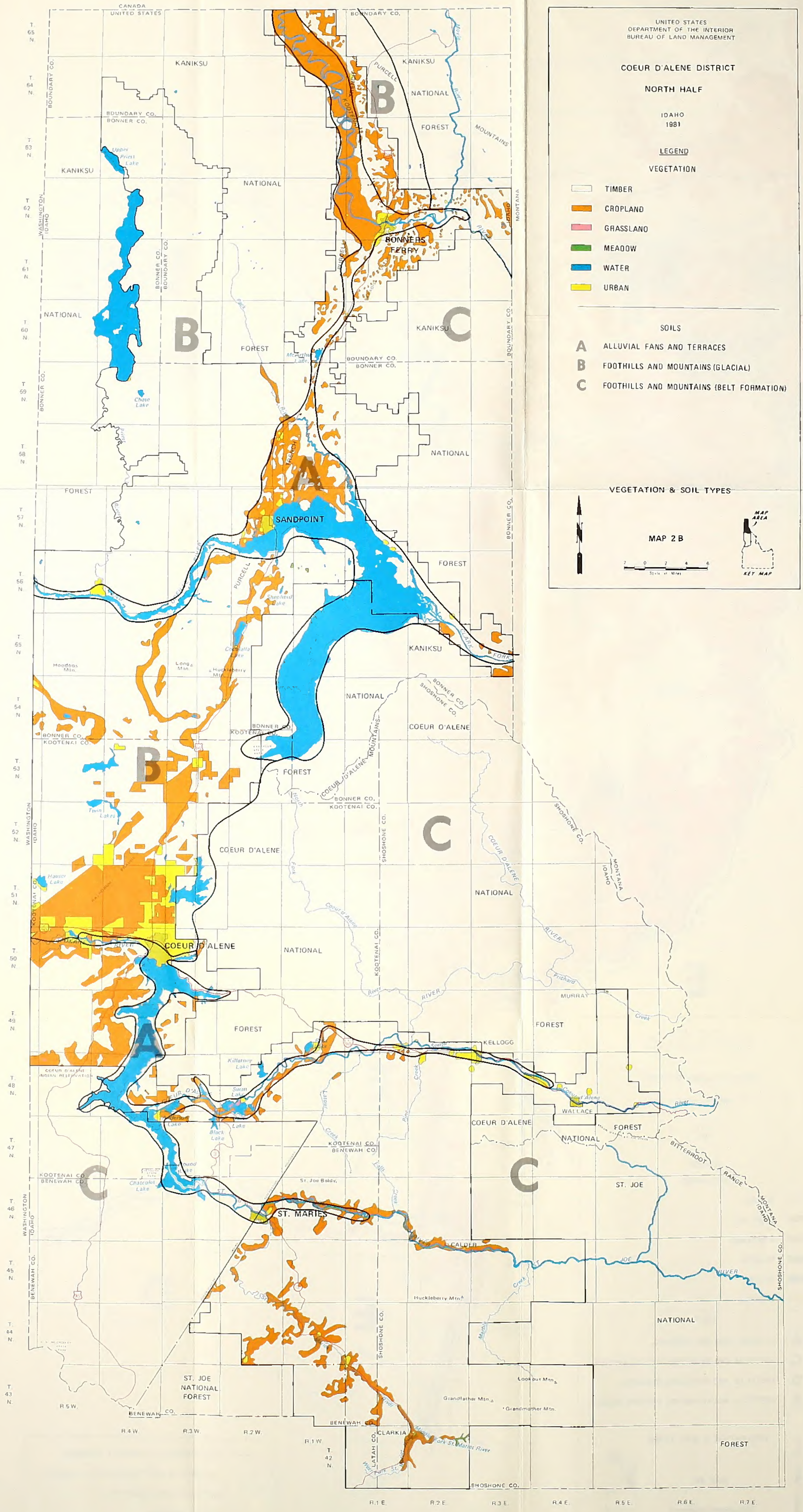
- ☐ TIMBER
- 🟧 CROPLAND
- ▨ GRASSLAND
- 🟩 MEADOW
- 🟦 WATER
- 🟨 URBAN

SOILS

- A ALLUVIAL FANS AND TERRACES
- B FOOTHILLS AND MOUNTAINS (GLACIAL)
- C FOOTHILLS AND MOUNTAINS (BELT FORMATION)

VEGETATION & SOIL TYPES

MAP 2 B



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LEGEND

VEGETATION

☐	TIMBER
🟧	CROPLAND
▨	GRASSLAND
🟩	MEADOW
🟦	WATER
🟨	URBAN

SOILS

A	ALLUVIAL FANS AND TERRACES
B	FOOTHILLS AND MOUNTAINS (GLACIAL)
C	FOOTHILLS AND MOUNTAINS (BELT FORMATION)

VEGETATION & SOIL TYPES

MAP 2 B

March 3, 1849

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